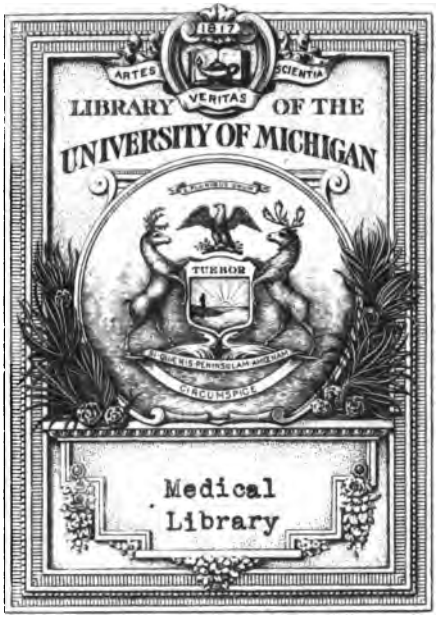

TRANSACTIONS

OF THE

MEDICAL SOCIETY

OF

NEW JERSEY.

1876.

NEWARK, N. J.:
JENNINGS & HARDHAM, STEAM PRINTERS AND BOOKBINDERS,
153 and 155 Market Street.
1875.

OFFICERS, 1876.

PRESIDENT.

JNO. V. SCHENCK, ... CAMDEN.

VICE-PRESIDENTS.

1ST. HENRY R. BALDWIN, ... NEW BRUNSWICK.

2D. JNO. S. COOK, ... HACKETTSTOWN.

3D. ALEX. W. ROGERS, ... PATERSON.

CORRESPONDING SECRETARY.

WM. ELMER, JR., ... TRENTON.

RECORDING SECRETARY.

WM. PIERSON, JR., ... ORANGE.

TREASURER.

W. W. L. PHILLIPS, ... TRENTON.

STANDING COMMITTEE.

STEPHEN WICKES, Permanent Chairman, ORANGE.

JOS. L. BODINE, ... TRENTON.

SAM'L LILLY, ... LAMBERTVILLE.

FELLOWS.

All persons who shall have been, or may hereafter be President of the Society, shall rank as Fellows, and be entitled to all the privileges of delegated members.

Act of Incorporation, Sec. 1.

Those marked thus [*] are deceased.

*Robert McKean.....1776
*William Burnett.....1767
*John Cochran..... 1768
*Nathaniel Scudder.....1770
*Isaac Smith.....1771
*James Newell.....1772
*Absalom Bainbridge.....1773
*Thomas Wiggins.....1774
*Hezekiah Stites 1775

* * * * * *

*John Beatty 1782
*Thomas Barber.. 1783
*Lawrence Van Derveer...1784
*Moses Bloomfield... 1785
*William Burnett..... 1786
*Jonathan Elmer 1787
*James Stratton 1788
*Moses Scott 1789
*John Griffith.....1790
*Lewis Dunham.....1791
*Isaac Harris..... ...1792
*James Newell.....1795
*Jonathan F. Morris.....1807
*Peter I. Stryker.....1808
*Lewis Morgan.....1809
*Lewis Condict.....1810
*Charles Smith..... 1811
*Matt. H. Williamson....1812
*Samuel Forman.....1814
*John Van Cleve.....1815
*Lewis Dunham... 1816
*Peter I. Stryker.....1817
*John Van Cleve.....1818
*Lewis Condict.....1819
*James Lee 1820
*William G. Reynolds....1821
*Augustus R. Taylor.....1822
*William B. Ewing... .. 1823
*Peter I. Stryker.....1824
*Gilbert S. Woodhull...1825
*Wm. D. McKissack.....1826
*Isaac Pierson.....1827
*Jephtha B. Munn..... 1828
*John W. Craig 1829
*Augustus R. Taylor.....1830
*Thomas Yarrow.....1831
*Fitz Randolph Smith....1832
*William Forman.....1833
*Samuel Hayes.....1834
*Abm. P. Hagerman.....1835
*Henry Van Derveer....1836
*Lyndon A. Smith.....1837

*Benj. H. Stratton.....1838
*Jabez G. Goble.....1839
*Thomas P. Stewart. 1840
*Ferdinand S. Schenck.....1841
Zachariah Reed.....1842
*Abraham Skillman.....1843
George R. Chetwood.....1844
*Robert S. Smith..... ..1845
*Charles Hannah..... 1846
*Jacob T. B. Skillman. 1847
Samuel H. Pennington....1848
Joseph Fithian.....1849
*Elias J. Marsh..... 1850
John H. Phillips.....1851
*Othn'l H. Taylor 1852
Samuel Lilly.....1853
*A. B. Dayton.....1854
J. B. Coleman... 1855
*Richard M. Cooper..... ..1856
Thomas Ryerson.....1857
*Isaac P. Coleman.....1858
John R. Sickler.....1859
Wm. Elmer.....1860
Jno. Blane.....1861
Jno. Woolverton.....1862
Theo. R. Varick.....1863
Ezra M. Hunt.....1864
Abram Coles..... .1865
Benj. R. Bateman.....1866
Jno. C. Johnson.....1867
Thos. J. Corson.....1868
Wm. Pierson..... .1869
Thos. F. Cullen.....1870
Chas. Hasbrouck 1871
Franklin Gauntt.....1872
T. J. Thomason.....1873
G. H. Larison.....1874
Wm. O'Gorman.....1875

HONORARY MEMBERS.

*David Hosack, New York.....1827
*J. W. Francis.....1827
*John Condict, Orange.....1830
*Noah Parsons, Rhode Island.....1839
*Reuben D. Murphy, Cincinnati.....1839
Alban G. Smith, New York.....1839
Willard Parker, New York.....1842
*Valentine Mott, New York.....1843
*Jonathan Knight, New Haven.....1848
*Nath'l Chapman, Philadelphia.....1848
*Alex. H. Stephens, New York.....1848
*Lewis C. Beck, New York.....1850
*John C. Torrey, New York.....1850
George B. Wood, Philadelphia.....1853
H. A. Buttolph, Morris Plains, N. J.....1854
Ashbel Woodward, Franklin, Conn.....1861
*Thos. W. Blatchford, Troy, N. Y.....1861
Jeremiah S. English, Manalapan, N. J.....1867
Stephen Wickes, Orange, N. J.....1868
S. O. Vanderpool, Albany, N. Y.....1872
Jos. Parrish, Media, Penn.....1872
Ferris Jacobs, Delhi, N. Y.....1872
C. A. Lindsley, New Haven, Conn.....1872
Wm. Pepper, Philadelphia.....1874
J. Weir Mitchell, Philadelphia.....1876

MEMBERS OF DISTRICT MEDICAL SOCIETIES

REPRESENTED AT THE

ANNUAL MEETING, 1876.

BERGEN COUNTY.

(District Society organized February 28, 1854.)

M. S. Ayres,	*Fairview.*	C. Hasbrouck,	*Hackensack.*
A. S. Burdett,	*Hackensack.*	H. A. Hopper,	"
D. C. Carr,	*Closter.*	H. C. Neer,	*Park Ridge.*
A. Clendinen,	*Fort Lee.*	J. M. Simpson,	*Schraalenburgh.*
D. A. Currie,	*Englewood.*	D. St. John,	*Hackensack.*
F. A. Davis,	*Rutherford.*	G. C. Terhune,	"
J. T. DeMund,	*Wortendyke.*	A. P. Williams,	*Rutherford.*
J. J. Haring,	*Tenafly.*	S. J. Zabriskie,	*Westwood.*

No. Members, 16. CHAS. HASBROUCK, Secretary.

BURLINGTON COUNTY.

(District Society organized May 19, 1829.)

J. H. Pugh,	*Burlington.*	E. P. Townsend,	*Beverly.*
Franklin Gauntt,	"	A. W. Taylor,	"
L. Van Rensselaer,	"	Alex. Elwell,	*Vincentown.*
Joseph Parrish,	"	S. C. Thornton,	*Moorestown.*
Chas. A. Baker,	"	N. N. Stokes,	"
Henry H. Longstreet,	*Bordentown.*	Lewis Sharp,	*Medford.*
Irene D. Young,	"	J. Reeve,	"
L. P. Jemison,	"	Theophilus T. Price,	*Tuckerton.*
R. H. Page,	*Columbus.*	Stanley G. Clark,	"
Daniel Van Mater,	"	E. Hollingshead,	*Pemberton.*
A. E. Budd,	*Mt. Holly.*	George Goodell,	*Sykesville.*
R. E. Brown	"		

No. Members, 23. E. P. TOWNSEND, Secretary.

CAMDEN COUNTY.

(Organized August 14, 1846.)

John V. Schenck,	*Camden.*	Thomas G. Rowand,	*Camden.*
Thomas F. Cullen,	"	James A. Armstrong,	"
H. Genet Taylor,	"	E. J. Snitcher,	"
Alexander Marcy,	"	W. P. Melcher,	"
James M. Ridge,	"	John W. Snowden,	*Waterford.*
Alexander M. Mecray,	"	N. B. Jennings,	*Haddonfield.*
J. Orlando White,	"	I. W. Hewlings, Jr.,	"
Randall W. Morgan,	"	C. H. Shivers,	"
Richardson B. Okie,	"	J. Gilbert Young,	"
Isaac B. Mulford, Jr.,	"	John R. Stevenson,	"
D. Parrish Pancoast,	"	H. L. Branin,	*Blackwoodtown.*
John R. Haney,	"	J. W. McCullough,	"
W. H. Ireland,	"	H. A. M. Smith,	*Gloucester City.*
Thomas Westcott,	"	George W. Broughman,	"
Maximillian West,	"	Edwin Tomlinson,	"
L. L. B. Godfrey,	"	D. W. Blake,	"

HONORARY MEMBERS.

Joseph F. Garrison,	*Camden.*	A. D. Woodruff,	*Princess Anne, Md.*
R. C. Dean, *U. S. N.*,	*Washington.*	Peter V. Schenck,	*St. Louis, Mo.*

No. Members, 32. H. GENET TAYLOR, Secretary.

CUMBERLAND COUNTY.

(Organized December 8, 1818.)

B. R. Bateman,	*Cedarville.*	Jos. Sheppard,	*Bridgeton.*
E. E. Bateman,	"	H. W. Elmer,	"
Eph. Bateman,	"	W. L. Newell,	*Millville.*
R. M. Bateman,	"	J. S. Whitaker,	"
George Tomlinson,	*Roadstown.*	C. H. Dare,	*Shiloh.*
J. Barron Potter,	*Bridgeton.*	Geo. M. Paullen,	"
T. J. Smith,	"	S. G. Cattell,	*Deerfield.*
R. W. Elmer,	"	T. E. Stathem,	*Greenwich.*
W. Elmer, Sr.,	"	D. B. Ingersoll,	*May's Landing.*

HONORARY MEMBER.

Enoch Fithian, *Greenwich.*

No. Members, 18. H. W. ELMER, Secretary.

ESSEX COUNTY.

(Society organized June 4, 1816.)

— Bailey,	*Bloomfield.*	Archibald Mercer,	*Newark.*
Aaron K. Baldwin,	*Newark.*	Andrew M. Mills,	"
M. Baldwin,	"	Edward P. Nichols,	"
Hermann C. Bleyle,	"	Isaac A. Nichols,	"
Carl Buttner,	*Orange.*	Wm. O'Gorman,	"
T. N. Bradfield,	*Newark.*	Sam'l H. Pennington,	"
Wm. J. Chandler,	*S. Orange.*	Stephen Personett,	*Verona.*
Abram Coles,	*Newark.*	W. Nick Pindell,	*Newark.*
J. C. Corson,	*Orange.*	Wm. Pierson,	*Orange.*
J. A. Corwin,	*Newark.*	Wm. Pierson, jr.,	"
L. M. Crane,	*Orange.*	J. W. Pinkham,	*Montclair.*
J. A. Cross,	*Newark.*	Wm. Rankin,	*Newark.*
Daniel M. Dill,	"	Phillippe Ricord,	"
Alexander N. Dougherty,	"	David S. Smith,	*Irvington.*
A. Mead Edwards,	"	D. Winans Smith,	*Newark.*
Christopher Eyrich,	"	Edward D. G. Smith,	"
Geo. C. Freeborn,	"	Lott Southard,	"
W. B. Grover,	"	Charles W. Stickney,	"
Ella Haines,	"	E. B. Thompson,	*Orange.*
Trevonion Haight,	"	M. H. C. Vail,	*Newark.*
H. Campbell Hendry,	"	G. A. Van Wagenen,	"
Peter V. Hewett,	"	Arthur Ward,	"
Edgar Holden,	"	Leslie D. Ward,	"
W. H. Holmes,	*Orange.*	E. T. Whittingham,	*Millburn.*
Joseph B. Jackson,	*Newark.*	Stephen Wickes,	*Orange*
Charles J. Kipp,	"	Frank Wilmarth,	*E. Orange.*
Henry A. Kornemann,	"	Charles Young,	*Newark.*
Jno. J. H. Love,	*Montclair.*	Charles M. Zeh,	"

No. Members, 56. CHAS. YOUNG, Secretary.

GLOUCESTER COUNTY.

(Society organized December, 1818.)

L. A. D. Allen,	*Woodstown.*	A. Trenchard,	*Williamstown.*
Wm. H. Turner,	*Mantua.*	H. C. Buckingham,	*Clayton.*
C. Grant Garrison,	*Swedesboro.*	Jno. H. Ashcroft,	*Mullica Hill.*
H. C. Clark,	*Woodbury.*	Jno. D. Heritage,	*Glassboro.*
S. T. Miller,	*Paulsboro.*	Paul S. Heritage,	*Hurfville.*
Samuel F. Fisler,	*Clayton.*		

No. Members, 11. WM. H. TURNER, Secretary.

HUDSON COUNTY.

(Society organized October 1, 1851.)

L. W. Elder,	*Hoboken.*	B. A. Andrew,	*Jersey City.*
J. H. Vondy,	*Jersey City.*	F. C. Selnow,	"
D. L. Reeve,	"	J. A. Blake,	*West Hoboken.*
S. R. Forman,	"	F. C. Rau,	"
T. F. Morris,	"	H. M. Eddy,	*Jersey City.*
E. P. Buffett,	"	J. D. Van Saun,	"
J. Kudlick,	*Hoboken.*	J. Lochner,	"
J. W. Hunt,	*Jersey City.*	C. H. Yerrington,	"
F. E. Noble,	"	C. C. Young,	"
J. Craig,	"	R. W. Fry,	"
J. B. Burdett,	"	D. Murray,	"
D. S. Hardenberg,	"	M. Lampson,	"
C. H. Case,	"	J. R. Waldemeyer,	"
C. O. Veirs,	"	L. J. Gordon,	"
T. Geisler,	*Hoboken.*	H. Braunstein,	*Hoboken.*
J. J. Prendergast,	*Jersey City.*	A. Freeman,	*Jersey City.*
E. J. Lowenthal,	*Hoboken.*	S. V. W. Stout,	"
A. A. Lutkins,	*Jersey City.*	W. C. Lutkins,	"
B. D. Carpenter,	"	Walter Bay,	"
H. Mitchell,	"	J. Q. Bird,	"

No. Members, 40. WM. R. FISHER, Secretary.

HUNTERDON COUNTY.

(Society organized June 12, 1821.)

Matthias Abel,	*Quakertown.*	C. W. Larison,	*Ringoes.*
A. W. Armitage,	*Woodsville.*	R. G. Ludlow,	*Neshanic.*
John Blane,	*Perryville.*	A. S. Pittinger,	*Clover Hill.*
N. B. Boileau,	"	Geo. T. Ribble,	*Milford.*
Geo. W. Bartow,	*Three Bridges.*	Jno. F. Schenck,	*Flemington.*
W. S. Creveling,	*Bethlehem.*	Wm. H. Schenck,	"
Isaac S. Cramer,	*Sergeantsville.*	Geo. R. Sullivan,	"
M. D. Knight,	*Little York.*	Theo. H. Studdiford,	*Lambertville.*
Wm. Knight,	*Annandale.*	Albert Shannon,	*Stanton.*
Sam'l Lilly,	*Lambertville.*	O. H. Sproul,	*Stockton.*
Geo. H. Larison,	"		

No. Members, 21. O. H. SPROUL, Secretary.

MERCER COUNTY.

(Society organized July 24, 1848.)

James B. Coleman,	*Trenton.*	Wm. Green,	*Trenton.*
John Woolverton,	"	Ed. H. Reed,	"
W. W. L. Phillips,	"	Chas. F. Deshler,	*Hightstown.*
Thomas J. Corson,	"	I. I. Ribble,	*Trenton.*
Chas. Skelton,	"	Wm. Elmer,	"
Chas. Hodge,	"	Herman Schaffer,	"
O. H. Bartine,	*Princeton.*	Lyman Levitt,	"
R. R. Rogers,	*Trenton.*	T. H. Makenzie,	"
Charles Shepherd,	"	J. W. Ward,	"
David Warman,	"	Wm. S. Lalor,	"
Jos. L. Bodine,	"	A. W. Armitage,	*Woodsville.*
J. B. James,	"	Charles H. Dunham,	*Trenton.*
I. H. Wykoff,	*Princeton.*	Charles P. Britton,	"
H. W. Coleman,	*Trenton.*	Elmer Barrows,	*Hamilton Square.*

No. Members, 28. H. WALDBURG COLEMAN, Secretary.

MIDDLESEX COUNTY.

(Society organized June 13, 1816.)

H. R. Baldwin,	*New Brunswick.*	N. Williamson,	*New Brunswick.*
S. V. D. Clark,	"	John Helm,	"
D. C. English,	"	C. H. Andrews,	*Metuchen.*
G. J. Janeway,	"	E. M. Hunt,	"
W. E. Mattison,	"	F. B. Norton,	"
C. Morrogh,	"	J. C. Holmes,	*Cranberry.*
P. H. Shannon,	"	A. Treganowan,	*South Amboy.*
D. Stephens,	"	C. M. Slack,	*Dayton.*
R. Van Dyke,	"	W. V. Wilson,	*Monmouth Junction.*
C. H. Voorhees,	"		

No. Members, 19.

MONMOUTH COUNTY.

(Society organized July 24, 1816.)

J. E. Arrowsmith,	*Keyport.*	James Holmes,	*Allentown.*
Asher T. Applegate,	*Englishtown.*	Samuel Johnson,	*Long Branch.*
I. A. Beegle,	*Blue Ball.*	Robert Laird,	*Squan Village.*
Robert R. Conover,	*Red Bank.*	Charles A. Laird,	"

Henry G. Cooke,	*Holmdel.*	I. S. Long,	*Freehold.*
John Cooke,	*Englishtown.*	Wm. A. Newell,	*Allentown.*
James S. Conover,	*Freehold.*	P. B. Pumyea,	*Imlaystown.*
Charles A. Conover,	*Marlborough.*	T. J. Thomason,	*Perrineville.*
S. M. Disbrow,	*Squankum.*	John Vought,	*Freehold.*
D. McLean Forman,	*Freehold.*	George T. Welch,	*Keyport.*
Jos. B. Goodenough,	*Long Branch.*	Wilmer Hodgson,	"
A. A. Howell,	*Allentown.*	W. R. Kenmouth,	*Farmingdale.*
A. A. Higgins,	*Squan Village.*	James H. Patterson,	*Shrewsbury.*
S. H. Hunt,	*Eatontown.*	James E. Cooper,	*Colt's Neck.*

HONORARY MEMBERS.

J. S. English,	*Manalapan.*	A. V. Conover,	*Freehold.*
Edward Taylor,	*Middletown.*		

No. Members, 28. JNO. VOUGHT, Secretary.

MORRIS COUNTY.

(Society organized, June 1, 1816.)

C. Anderson,	*Madison.*	J. C. Lindsley,	*Morristown.*
D. S. Ayres,	*Rockaway.*	Chas. H. Ludlum,	*Boonton.*
P. C. Barker,	*Morristown.*	A. A. McWithey,	*Pompton.*
I. W. Condict,	*Dover.*	F. W. Miller,	*Whippany.*
A. E. Carpenter,	*Boonton.*	F. W. Owen,	*Morristown.*
E. P. Cooper,	*Parsippany.*	Stephen Pierson,	"
T. R. Crittenden,	*Dover.*	J. Riches,	*Succasunna.*
J. O. Cummins,	"	C. D. V. Romondt,	*Pompton.*
T. B. Flagler,	*Morristown.*	J. G. Ryerson,	*Boonton.*
Jos. S. Farrow,	*Flanders.*	F. F. Sanders,	*Morristown.*
Levi Farrow,	*Middle Valley.*	I. H. Stiger,	*Mendham.*
P. A. Harris,	*Dover.*	Jno. S. Stiger,	"
H. Hulshizer,	*Port Oram.*		

OCEAN COUNTY.

I. C. Schureman,	C. O. Gordon,
D. C. Chase,	S. B. Irwin,
P. K. Hilliard,	R. L. Disbrow.
E. Marston,	

No. Members, 7.

HONORARY MEMBERS.

C. R. Nelden,	*Stanhope.*	N. Condict,	*Morristown.*
E. B. Gaines,	*Boonton.*	R. W. Stevenson,	"

No. Members, 25. STEPHEN PIERSON, Secretary.

PASSAIC COUNTY.

(Society organized July 14. 1844.)

Oswald Warner,	*Paterson.*	Ridley Kent,	*Paterson.*
S. R. Merrill,	"	A. W. Rogers,	"
Jas. C. Amiraux,	"	R. J. Whiteley,	"
J. R. Leal,	"	Michael Moss,	"
Sarah F. Mackintosh,	"	C. S. Van Riper,	"
H. C. Van Gieson,	"	E. J. Marsh,	"
G. H. Balleray,	"	John Quin,	"
Patrick Cahill,	"	O. V. Garnett,	"
Jacob Henggler,	"	G. W. Terriberry,	"
Wm. Blundell,	"	Wm. Busse,	"
T. J. Kane,	"	Jas. H. Macintosh,	"
Wm. Kent,	"	Chs. W. F. Myers,	"
I. S. Bibby,	"	E. F. Brush,	"
C. Terriberry,	"	Spencer Van Dalsen,	"
C. Van Riper,	*Passaic.*	G. Terhune,	*Passaic.*
J. C. Herrick,	"	R. A. Terhune,	"
F. W. Rice,	"	Jas. H. Casey,	"

No. Members, 34. JAS. C. AMIRAUX, Secretary.

SUSSEX COUNTY.

(Society organized August 22. 1829.)

T. H. Andress, *Pres.*,	*Sparta.*	John Moore,	*Deckertown.*
J. L. Allen,	*Lafayette.*	John Miller,	*Andover.*
Carlos Allen,	*Vernon.*	L. D. Miller,	*Newton.*
J. B. Boss,	*Sparta.*	Ephraim Morrison,	"
F. M. Cannon,	*Deckertown.*	J. F. McCloughan,	*Swartswood.*
J. P. Couse,	*Hamburg.*	C. R. Nelden,	*Stanhope.*
Martin Cole, Jr.,	*Hainsville.*	J. B. Pellet,	*Hamburgh.*
C. K. Davidson,	*Stanhope.*	Thomas Roe,	*Walpack Centre.*

Joseph Hedges,	*Branchville.*	Thomas Ryerson,	*Newton.*
Jonathan Havens, *Sec'y*,	*Newton.*	Franklin Smith,	"
P. N. Jacobus, *V. P.*,	*Beemerville.*	D. M. Sayre,	"
W. H. Linn,	*Hamburg.*	H. McDonald Struble,	*Andover.*
C. V. Moore,	*Stillwater.*	Eugene Schumo,	*Laytons.*

No. of Members, 26. JONATHAN HAVENS, Secretary.

UNION COUNTY.

(Society organized June 7, 1869.)

C. H. Stillman, *Pres't*,	*Plainfield.*	T. L. Hough,	*Elizabeth.*
Robert Westcott, *V. P.*,	*Elizabeth.*	E. B. Silvers,	*Rahway.*
T. N. McLean, *Secretary*,	"	J. K. McConnell,	*Cranford.*
J. A. Coles, *Treas.*,	*Scotch Plains.*	J. S. Crane,	*Elizabeth.*
H. H. James, *Reporter*,	*Rahway.*	A. M. Cory,	*New Providence.*
L. W. Oakley,	*Elizabeth.*	J. B. Probasco,	*Plainfield.*
D. W. C. Hough,	*Rahway.*	T. H. Tomlinson,	"
J. S. Green,	*Elizabeth.*	H. C. Pierson,	*Roselle.*
F. A. Kinch,	*Westfield.*	Wm. K. Gray,	*Summit.*
J. O. Pinneo,	*Elizabeth.*	Sherman Cooper,	*Westfield.*
Alonzo Pettit,	"	F. B. Gillette,	*Plainfield.*
Thomas Terrill,	"	H. D. Burlingham,	"
Ph. H. Grier,	"	E. V. Stryker,	*Westfield.*
William Gale,	*Westfield.*	Chas. A. Kinch,	"
John S. Brosnan,	*Elizabeth.*	Victor Mravlag,	*Elizabeth.*
S. E. Arms,	"	David Schleimer,	"
J. H. Grier,	"	William C. Boone,	*Plainfield.*
W. U. Selover,	*Rahway.*	Lewis Drake,	*Rahway.*
Louis Braun,	*Elizabeth.*	C. F. Stillman,	*Plainfield.*

No. of Members, 38. T. N. MCLEAN, Secretary.

WARREN COUNTY.

(Society organized February 15, 1826.)

P. F. Brakeley,	*Belvidere.*	J. M. Paul, Jr.,	*Belvidere.*
S. S. Clark,	"	H. S. Harris,	"
P. F. Hulshizer,	*Stewartsville.*	Wm. H. McGee,	"
John C. Johnson,	*Blairstown.*	L. M. Osmun,	*Phillipsburg.*
L. C. Osmun,	*Delaware.*	J. F. Shepperd,	"
John S. Cook,	*Hackettstown.*	John H. Griffith,	"
Theodore Crane,	"	Henry H. Rinehart,	*Hope.*
E. T. Blackwell,	"	T. T. Mutchler,	*Broadway.*
Wm. M. Hartpence,	*Oxford.*	Wm. J. Roe,	*Danville.*

HONORARY MEMBER.

James C. Fitch, *Hope.*

No. of Members, 18. P. F. Brakely, Secretary.

SUMMARY.

Bergen,	16	Monmouth,	28
Burlington,	23	Morris,	25
Camden,	32	Ocean,	7
Cumberland,	18	Passaic,	34
Essex,	56	Sussex,	26
Gloucester,	11	Union,	38
Hudson,	40	Warren,	18
Hunterdon,	21		
Mercer,	28	Total,	440
Middlesex,	19		

TRANSACTIONS

OF THE

MEDICAL SOCIETY OF NEW JERSEY.

THE ONE HUNDRED AND TENTH ANNUAL MEETING.

The Society assembled in the drawing-rooms of Congress Hall, in Cape May City, on Tuesday evening, May 23d, 1876, at 7.30 o'clock.

Dr. Wm. O'Gorman, President, occupied the chair, supported by Vice-Presidents Schenck, Baldwin and Cook. All the officers, excepting Drs. Ryerson and Thornton of the Standing Committee, were present.

The session was opened with prayer by the Rev. Mr. Shields, of Cape May.

The Committee on Organization, by the Secretary reported the following as duly accredited delegates (Dr. L. W. Oakley acting on the Committee by appointment of the President):

Bergen—D. A. Currie, A. Clendenin, H. A. Hopper, M. S. Ayres.* Members, 16.

Burlington— Theo. T. Price, Joseph Parish,* Alex. Elwell, Franklin Gaunt, R. E. Brown. Members, 23.

Camden—John W. Snowden, Alex. Marcy, H. Genet Taylor, Alex. M. Marcy, N. B. Jennings. Members, 32.

Cumberland—J. S. Whitaker, T. J. Smith, Geo. Tomlinson, H. W. Elmer. Members, 19.

Essex—A. N. Dougherty, W. Rankin, A. Mercer, J. A. Cross, J. J. H. Love, J. D. Ward, A. Ward, E. P. Nichols. Members, 56.

Gloucester—S. F. Fisler, P. S. Heritage, W. H. Turner. Members, 11.

Hudson—F. F. Morris, S. R. Forman, W. R. Fisher, J. B. Burdett, H. Mitchell, J. R. Waldmeyer. Members, 41.

Hunterdon—Isaac S. Cramer, O. H. Sproul, W. S. Creveling, Geo. W. Barton. Members, 20.

Mercer—D. Warman, J. I. B. Ribble, J. W. Ward, R. R. Rodgers, W. Green. Members, 28.

Middlesex—G. J. Janeway, C. H. Voorhees, N. Williams, D. E. English. Members, 18.

Monmouth—J. E. Arrowsmith, Robt. R. Conover, Geo. T. Welch,* D. McLean Forman. Members, 28.

Morris—D. L. Ayres, F. F. Sanders, J. G. Ryerson, E. P. Cooper, Levi Farron. Members, 25.

Ocean—C. O. Gordon, P. K. Hilliard, S. B. Erwin. Members, 7.

Passaic—G. H. Ballery, A. W. Rogers, James H. Mackintosh, J. R. Leal, Charles W. F. Myers, Jas. C. Amiraux. Members, 34.

Sussex—T. H. Andress, J. B. Pellet, F. M. Cameron, Joseph Hedges. Members, 26.

Union—L. W. Oakley, J. A. Coles, T. H. Tomlinson, Jas. S. Green, W. U. Selover, E. B. Silvers. Members, 38.

Warren—P. F. Brakely, L. M. Osmun, J. F. Sheppard, Wm. H. McGee. Nembers, 18

Reporters—James M. Ridge, Camden; F. Wilmarth,* Essex; C. Grant Garrison, Gloucester; Leonard J. Gordon,* Hudson; C. W. Larison, Hunterdon; H. W. Coleman,* Mercer; D. C. English, Middlesex; P. C. Harris,* Morris; Sarah F. Mackintosh,* Passaic; H. H. James, Union; S. C. Thornton, Burlington.

The Secretary also reported the following persons, delegates from Corresponding Societies, as being present:

Drs. Goodell and Ash, of Pennsylvania; Dr. Newman, of New York; Dr. Wiggin, of Rhode Island; Dr. Cutler, of Massachusetts; and Dr. Bibber,† of Maine.

Fellows Present—S. H. Pennington, Joseph Fithian, Samuel Lilly.

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* Absent. † Reported subsequently.

Joseph R. Sickler, Wm. Elmer, Sr., John Blane, John Woolverton Ezra M. Hunt, Benj. R. Bateman, Thomas J. Corson, William Pierson, Sr., Thomas F. Cullen, Charles Hasbrouck, Franklin Gauntt, Thomas J. Thomason, George H. Larison.

Honorary Members Present—J. S. English, S. Wickes and William Pepper.

The Minutes of the last Annual Meeting were read and approved.

On motion of Dr. S. Lilly, the following resolution was adopted:

Resolved, That the delegates from corresponding Societies, Prof. D. Hays Agnew, Prof. W. Pepper, Drs. Levis, Atkinson, J. Solis Cohen, Andrews, Dunglison, from Philadelphia; Prof. Traill Green, of Easton, and all members of the profession from other States, and members of District Medical Societies of this State, and the resident physicians of Cape May, be and they are hereby cordially invited to seats as corresponding members.

The Committee of Arrangements, through their chairman, Dr. Bateman, addressed the Society as follows:

GENTLEMEN OF THE MEDICAL SOCIETY OF NEW JERSEY:

At the Annual Meeting held last year at Atlantic City, the Cumberland County District Medical Society extended an invitation to the Medical Society of New Jersey to meet this year at Cape May City. This invitation was accepted, with a like invitation from the District Society of Gloucester, which Society wished to share the honors of the occasion with Cumberland.

A Committee was appointed to carry out the necessary arrangements for holding the Annual Meeting in this city.

The Committee have made every effort, as they believe, to render this meeting pleasant and satisfactory. Having first secured this celebrated place (Congress Hall) for its session, they obtained a free pass from and to Camden, through the liberality of the New Jersey Railroad Company, and arrangements were also effected with the Pennsylvania R. R. of the New Jersey Division, for excursions tickets (at about half the usual fare) which will be good until the 29th inst.

This evening at 10.30 there will be a collation and social reunion in

the drawing-room of the hotel, given to the delegates, their families and invited guests, by the physicians of Cumberland, Gloucester and Cape May; to which you are all cordially invited.

On Wednesday, after the adjournment, or whenever it may suit your pleasure, Mr. Alexander Whilden, of Philadelphia, has made provision to convey the Society and all others present, to the new city of "Sea Grove," about one and a half miles distant, which invitation so generously extended, I hope you will accept.

And now, gentlemen, in the name of the District Societies of Cumberland and Gloucester, and the Medical Society of Cape May, I welcome you to this "City by the sea." You have in your annual sessions visited Long Branch and Atlantic City, and to day we are happy to greet you at this celebrated watering place, at the southern extremity of our State. How grand and majestic are its objects! The broad Atlantic and the waters of the Delaware here commingle and are studded with commercial canvas from every nation.

This city, which you have honored with your presence, as a sea-side resort, has no superior along the Jersey coast. It is very justly celebrated for

1st. Its Humidity.
2d. Its Drinking Water.
3d. Its Drainage or Sewerage.
4th. Its Artesian Well.
5th. Its Organized Fire Department.
6th. Its Magnificent Drives.
7th. Its Unrivalled Beach.
8th. Its Temperature.

From the report of Capt. H. W. Howgate, of the Signal Service, we learn that the mean daily temperature of Cape May, Atlantic City, and Long Branch, for the months of July, August and September, 1874, was as follows: Cape May 68.9, Atlantic City 69.2, and Long Branch 69.6. This report also represents Cape May as having a dryer atmosphere than its rival, Atlantic City, during the hot summer months.

These facts render this watering place a desirable resort for those in quest of health, as well as for those seeking simple relaxation from business.

Dr. S. S. Marcy, who has been a practicing physician at Cape May for the past fifty-five years, says that during the first forty years, he

never met with an idiopathic case of intermittent fever, when the patient resided continuously on the Cape, and but few cases where the individual spent part of his time in this county. He has met with no cases among visitors, except in a few instances, where the disease could be fairly traced to excess of sea bathing. He also states that the typhoid fever is of rare occurrence, and very amenable to treatment. During his long and extensive experience, he has never known an epidemic of any disease to prevail during the summer, and visitors leaving the city on account of affections of the alimentary canal, speedily recover after a short residence at this locality.

To this city, beautiful by nature and by art, with its invigorating atmosphere and wonderful resources, its grand hotels and magnificent residences, it is my pleasure to bid the Medical Society of New Jersey a hearty welcome; it is our hope that your visit here may be among those things worthy to be remembered this Centennial year.

Gentlemen, *brethren*, thrice welcome to our hospitality.

The President read the Annual Address, the subject of which was "External Influences on Medicine."

On motion of Dr. Bateman, a vote of thanks was returned to the President for his able and interesting address, with a request that he furnish the Standing Committee with a copy for publication.

The Committee on Medical Ethics and Judicial Business, reported that there had been no business before the Committee during the year.

The Committee on Old Records of this Society, reported that it had published in pamphlet the records of the Society from the first meeting in 1766 to 1800.

An invitation from Mr. Whilden for the members of the Society to visit Sea Grove after adjournment tomorrow, was accepted.

A communication from Dr. J. D. McGill was received, and, on motion of Dr. Pennington, was referred to the Committee on Medical Ethics.

On motion of Dr. Wickes, the President appointed Drs. Lilly and Hunt on the Standing Committee, *pro re nata*, as the chairman was the only member in attendance.

The delegations of the several District Societies named their member of Nominating Committee as follows:

Bergen, H. A. Hopper; Burlington, F. Gaunt; Camden, J. W. Snowden; Cumberland, S. Whitaker; Essex, A. Ward; Gloucester, P. S. Heritage; Hudson, S. R. Forman; Hunterdon, J. S. Cramer; Mercer, J. I. B. Ribble; Middlesex, C. H. Voorhees; Monmouth, D. McLean Forman; Morris, D. S. Ayres; Ocean, ——— Gordon; Passaic, C. F. W. Myers; Sussex, J. Hedges; Union, L. W. Oakley; Warren, P. F. Brakeley.

The President announced the Committee, and named P. F. Brakely as the chairman.

The President also announced the following Committees:

Committee on Unfinished Business.—Drs. Thomason, Green, and Cross.

Committee on Treasurer's Accounts.—Drs. Arrowsmith, Voorhees, and Taylor.

The credentials and theses of Louis Rein and Edward Mueller of Hudson, candidates for the degree of M. D., were received and referred to the following Committee:

Drs. Pennington, Hunt, and Lilly.

Adjourned until nine o'clock to-morrow morning.

WEDNESDAY MORNING.

The President in the chair. Prayer was offered by the Rev. Mr. Garrison, of Camden.

A petition from Dr. Payne, of Hudson, was received,

and, on motion of Dr. Lilly, was referred to Committee on Ethics.

The Annual Report of the Standing Committee was read by Dr. S. Wickes, the chairman. The report was adopted and referred to Committee on Publication. A half hour was devoted to remarks upon the report, which was occupied by Drs. Hopper, Ridge, A. W. Rogers, Gauntt, J. Solis Cohen, and Wm. B. Atkinson.

Dr. Wickes introduced a blank which he said was a copy of one which had been used the past year by the reporter of the Morris District Society with great advantage, and he recommended its use by the reporters generally. (See Appendix, No. IX.)

Dr. Lilly, to whom was referred the writ of the Supreme Court of New Jersey, read his report, the recommendations of which were adopted. (See Appendix, No. I.) Drs. H. R. Baldwin and L. W. Oakley were added to the Committee.

On motion of Dr. Lilly, Drs. Lilly and Phillips were appointed a Committee to prepare and present to Barker Gummere, Esq., some expression of regard for the valuable services he has rendered the Society as law counsellor.

The Committee on Dr. Hunt's resolutions, by the chairman, Dr. Brakely, reported as follows:

The Committee to whom was referred the resolutions offered by Dr. E. M. Hunt, in reference to State legislation as to public health, feeling the subject to be one of vital interest, recommend the following resolutions:

Resolved, That the prevention of disease so far involves the interests of citizens as that it should be a subject of Legislative consideration.

Resolved, That we do not approve of any action by which Health Boards are constructed with reference to providing an assortment of Physicians of various medical sects.

Resolved, That any attempt to construct Medical Boards by legislative enactment, of different so-called schools, either for the purpose of Medical Examinations, or for Health Boards, should not receive the encouragement of any member of this Society.

All of which is respectfully submitted.

P. F. BRAKELEY,
J. M. RIDGE,
EZRA M. HUNT, } *Committee.*

The resolutions were adopted.

Dr. Love announced the death of Dr. A. W. Woodhull, a delegate to this Society, and moved that a Committee be appointed to prepare resolutions expressive of the sentiments of this body His motion was adopted, and a Committee consisting of Drs. Love, Smith and Cross, being appointed, subsequently reported the following, which were adopted:

WHEREAS, This Society have been informed of the death, on the 14th inst., of one of its delegated members, Dr. Addison W. Woodhull, of Newark, N. J., therefore—

Resolved, That in his death, we mourn the loss of one esteemed for his intelligent and faithful counsels, his discriminating judgment, his intellectual worth, his skill as a physician, and his patriotic services to the State and country.

Resolved, That by his death, the country, as also the State, loses one of its most valued citizens, and that, as fellow-members and co-workers in the profession, we deeply feel this sad bereavement, and extend our sympathies to his stricken family and friends.

Resolved, That this expression of the feelings of this Society be entered on the minutes, and a copy of it sent to his family.

Treasurer Phillips rendered his report, which was referred to the Committee on Treasurer's Accounts. (Appendix No. II.) The Committee subsequently reported that it had examined the accounts of the Treasurer, and had found them correct. The Committee approve of the recommendation of the Treasurer as

to the amount of the assessment for next year. The report was adopted.

Corresponding Secretary Elmer read his report. (Appendix No. III.) The Secretary mentioned that he had received letters of regrets from Drs. Adams and Buck, delegates from New York. Both gentlemen had intended to be present at this meeting, but were detained by sickness. Drs. J. Parrish and Ferris Jacobs, honorary members, also sent their regrets. The Corresponding Secretary also stated that he had received a communication from the International Medical Congress, requesting this Society to send delegates to the Congress to be held in Philadelphia in 1876; also one from the Boston Society of Civil Engineers, inviting this Society to aid it in memorializing Congress to fix a date after which the Metric Weights and Measures shall be the only legal standards.

It was voted to send delegates to the Congress, and the Nominating Committee was instructed to nominate the delegates. It was voted that Drs. Oakley, Cross and Taylor be a Committee to petition Congress to establish the Metric system of Weights and Measures, in connection with the Boston Society of Civil Engineers.

The Committee on Unfinished Business reported no items.

The delegates to corresponding Societies presented their reports, which were referred to Committee on Publication. (Appendix No. IV.)

The delegates from corresponding Societies were formally presented to the Society, and a cordial welcome was extended to them by the President. Dr. Cutler in behalf of Massachusetts, Dr. Wiggins of

Rhode Island, and Dr. Newman of New York, briefly responded.

The regular delegates from Pennsylvania having returned home, Prof. Traill Green, an ex-President of the Medical Society of Pennsylvania, was called out, and addressed the Society as follows:

I am happy to meet the gentlemen of the Medical Society of New Jersey to-day. I have always found it pleasant and profitable to attend these meetings. I supposed that I should not be called upon to make a speech at this busy period of their session, when so many interesting questions are being discussed. I endorse the remarks made a moment ago by the delegate from New York, "Life is too short to make a long speech," and I shall not attempt it.

I will say, that I am under great obligations to New Jersey and its Medical Society. The first gentleman to whom I was introduced, on entering life, was a New Jersey physician, and for some years was a member of this Society. I do not recollect any of the circumstances that were connected with that introduction, but it was a very important event in my life. I have from that day to this, with a few exceptions, soon after this occurrence, celebrated it annually. Its anniversary is now at hand—to-morrow I shall celebrate its sixty-third return.

Had I taken part in the interesting discussion which you have had on the use of calomel, I should have referred to its use by the gentleman to whom I have alluded—my first acquaintance. He was a progressive man, and followed the teachings of the schools of his day, when the dose called "Ten and Ten," (ten grains of calomel and the same quantity of jalap) was so much employed in the treatment of yellow fever. I would say that I was "brought up" on calomel. I was not sickly, but I know this remedy was administered in childhood and youth when I was ill. It is related of him, that if his dreams were unpleasant at night, he took a dose of calomel the day following, supposing that there was some functional derangement which required for its correction this medicine. His confidence in its therapeutic power, we think, was transferred to others in the community in which he lived and pursued his profession.

He was bold in the use of the lancet. When eighty-seven years of age he had an attack of rheumatism. I called to enquire concerning his health, and was invited to his chamber. He was glad to see me,

and said "Here is Dr. Edward Swift, who declined to bleed me; his brother Joseph bled me seventeen years ago in a similar attack. I replied, "yes, doctor, but seventeen years added to a man's life at seventy, makes many changes." He said, "Yes, but I know blood-letting will do me good." Dr. Swift remarked to me, aside, "I think we ought to defer to the doctor's opinion," and he was bled. The doctor was delighted to see the blood flowing from his arm, and remarked, "Do not stop it, I know it will do me good. I was never charged with killing more than three of my patients by blood-letting; two are still living, and one died ten years after the operation, from want of bleeding.

Dr. Joseph K. Swift, who was associated with him in practice for many years, used to remark, "Dr. Cooper always treated our bilious fever with great success. He carried his patient through his illness with great skill."

I can almost claim membership with you for other reasons. I live quite near the line which divides Pennsylvania from New Jersey. My father emigrated from the capital of your State to my present home; not because, as it is sometimes said, "New Jersey is a good State to emigrant from."

He, like others we find among us in Pennsylvania, was proud of his native State. We have had reason to be glad, on the other side of the line that separates us, that so many of your citizens have chosen our State for their home. They have carried to us professional and social qualities, which have been blessings to us.

I have found intercourse here with the members of our profession, profitable; and I shall carry with me pleasant memories of the meeting at Cape May.

Dr. Phillips, reported on the nomination of Dr. Weir Mitchell for honorary membership (Appendix No. VII.) A ballot was taken, when Dr. Weir Mitchell was declared unanimously elected an honorary member of this Society.

The nomination of Dr. Lutkins for the honorary degree of M. D., was by the request of Dr. Morris, withdrawn.

Dr. J. S. Cook, third Vice-President, read an essay, the subject of which was, "Our climate, and its effect upon disease."

On motion of Dr. Love, a vote of thanks was extended to the Doctor for his interesting essay.

Drs. R. M. Bateman and E. P. Townsend were present, and were prepared with their essays, but for want of time their essays were read by title only, and referred to Committee on Publication.

The Committee to whom was referred the theses of Mr. Mueller and Rein, reported by its chairman, Dr. Pennington, that it had examined the theses and found them satisfactory. Mr. Mueller's was on Chronic Perforating Gastric Ulcer. Mr. Rein, on Intermittent Fever. The certificates of the President of the Hudson District Society, as to the examinations of Mr. Mueller and Mr. Rein, were read and were deemed satisfactory. A ballot was taken upon the theses, which resulted in the unanimous approval of the same. The President and Secretary were instructed to prepare the diploma, and deliver the same to the parties, when they shall have fulfilled the further requirements of the law.

The Committee on Ethics, by Dr. Lilly, read its report on Dr. McGill's communication, which, on motion, was adopted. (Appendix No. VIII.)

The following bills were presented and ordered to be paid:

Wm. Elmer, Jr.	$24 05
Wm. Pierson, Jr.	18 00
F. W. Baldwin	5 00

Dr. E. J. Marsh, of Paterson, was appointed essayist for the next meeting of the Society.

The Nominating Committee reported, by the chairman, Dr. Blakely, as follows:

For President—John V. Schenck.

First Vice-President—H. R. Baldwin.

Second " —John S. Cook.

Third " —A. W. Rogers.

Corresponding Secretary—Wm. Elmer, Jr.

Recording " —Wm. Pierson, Jr.

Treasurer—W. W. L. Phillips.

Standing Committee—S. Wickes, Samuel Lilly and J. L. Bodine.

Delegates to the American Medical Association—H. A. Hopper, S. C. Thornton, H. G. Taylor, T. J. Smith, J. J. H. Love, P. S. Heritage, J. W. Hunt, Samuel Lilly, E. P. Cooper, J. B. Morris, John R. Leal, H. R. Baldwin, Wm. Armitage, Joseph Hedges, John Vought, T. H. Tomlinson, P. F. Brakely.

For Delegate to Medical Society of New Hampshire—C. P. Gordon.

For Delegates to Massachusetts Medical Society—J. J. Prendergast, J. L. Bodine, I. B. James, John G. Ryerson.

For Delegates to Rhode Island Medical Society—C. F. Deshler, T. J. Thomason, Samuel Lilly.

For Delegates to Maine Medical Society—G. H. Balleray, B. D. Carpenter, P. C. Gordon.

For Delegate to Connecticut Medical Society—E. J. Marsh.

For Delegates to New York Medical Society—E. B. Silvers, H. Mitchel, Jos. Parrish, E. Marston.

For Delegates to Pennsylvania Medical Society—C. H. Voorhees, H. C. Clark, Wm. Elmer, Sr., Wm. Blundell.

For Delegates to the International Medical Congress—J. M. Ridge, John Woolverton, Ezra M. Hunt, John C. Johnson, Charles Hasbrouck, Abram Coles, A. A. Lutkins.

The Committee recommend that hereafter no entertainment be given the Society at the place of meeting. The Committee also recommend that the next annual meeting of the Society be held in Trenton.

The Society elected, by ballot, the ticket as nominated.

The delegates were elected as reported by the Committee, by a viva voce vote.

The recommendations of the Committee were adopted.

It was ordered that the hour of the next meeting be at 7.30 oclock, P. M.

Drs. C. Shepherd, J. L. Bodine, Charles H. Dunham, John Woolverton, W. W. L. Phillips and R. R. Rogers were appointed a Committee of Arrangements for the next annual meeting.

Dr. Lilly gave notice that he should offer the following amendments to the by-laws, at the next annual meeting, provided the proposed amendment to the charter should be enacted:

Chapter I., Sec. 4. Substitute for the present subdivision "11th," the following, viz:

"11th Communications or propositions from any District or County Society; complaints, memorials, petitions and appeals from any such Society, or from any member thereof, and the hearing and determination thereof by the Society, or the reference thereof to a committee to hear and take proofs respecting the same, and report said proofs with their opinion thereon to the Society; and other miscellaneous business."

Chapter II., Sec. 7, after word "whole," line 9, on page 12, insert the following, wit:

"The said committee shall summon the Society and parties concerned to attend before them, and shall take the proofs offered on either side pertinent to the issue, and hear the statements or arguments of the parties thereon, and shall then make up their report and present the same to the next regular meeting of the Society."

And on same page, line 4, after word "all," and before word "appeals," insert the following, to wit:

"Complaints, memorials, petitions, and"

And on line 5, same page, after word "Societies," insert the following:

"Or any member thereof."

On motion of Dr. Oakley, the following were adopted:

Resolved, That the hearty thanks of the members of the Medical Society of New Jersey and guests here assembled are due and are hereby tendered to Gen. W. J. Sewell, Supt. of the W. J. R. R. Co., for the courtesy extended to them by the road which he represents, in conveying them to and from their place of meeting.

Resolved, That we fully appreciate the kindness of the Company, and that it has our best wishes for its prosperity.

Resolved, That the Society hereby express their thanks to the medical men of the counties of Cumberland, Gloucester and Cape May, and the Committee of Arrangements, for all their kindness and hospitality during the meetings of the Society. Also to Mr. Alex. Whilden, for his invitation to visit Sea Grove.

Adjourned.

WILLIAM PIERSON, JR.,
Recording Secretary.

APPENDIX TO THE MINUTES.

[APPENDIX No. I.]

To the Medical Society of New Jersey:

The undersigned, to whom was referred the writ of the Supreme Court of New Jersey, received at the last meeting of this Society, with power to act for the Society, and if necessary to employ counsel, respectfully reports:

That immediately after the adjournment of the Society, he applied to an eminent legal gentleman for information as to what was required by the Supreme Court, and how best to comply. He would here state that he understood the wishes of the Society to be to avoid, as far as practicable, becoming a party to the unpleasant controversy which has arisen between the members of the District Medical Society for the County of Hudson, aiming only to maintain the dignity of the State Society and keep freed from contempt of the Supreme Court.

The information received was that a return in proper form must be made to the writ, and that the service of an attorney familiar with the practice of the Court would be required. Your committee thereupon employed an attorney, who after considerable labor owing to the imperfect condition of the documents of which it should be composed, made the proper return within the time prescribed. The plaintiff to the writ, Dr. B. A. Watson, through his attorney, filed his reasons—seventeen in number—for his action. Your committee, deeming the case one of great importance to this Society, and probably involving considerable expense to properly carry it on, requested that a meeting of the officers, Standing Committee, and such Fellows and other eminent members of this Society as could be conveniently, reached should be called for consultation. The meeting was held, and after a full discussion, your committee was advised to retain eminent legal counsel, lay the whole case before him, and proceed in accordance with the advice he might give. Your committee accordingly retained Barker Gummere, Esq., of Trenton, to manage the case.

Shortly after this, two additional writs of certiorari were issued by the Supreme Court, involving the same controversy. Your committee was requested to acknowledge the service of these writs, and consent to the same return being filed as in the former case. This he declined, feeling that he had no power to act for the Society except in the case specially referred to him. He has learned, however, that the additional writs were served on the President of this Society, and by him referred to the attorney in the former case.

The three cases were argued before the Supreme Court at its last session; a decision may be expected at the coming term, which commences on the sixth of June (two weeks from to-day.) What it will be, it is of course impossible to tell, but our legal adviser predicts that it will be substantially in favor of the acts of this Society.

In view of the difficulties to which this Society may be exposed, as demonstrated in the case in hand, Mr. Gummere, with a view to their avoidance in the future, advises that a supplement to the charter of the Society shall be obtained from the next Legislature, more clearly defining its powers and duties, and that the By-Laws be so amended as to conform thereto. A draft of such supplement and amendment to By-Laws, prepared by Mr. G., is herewith submitted.

Your committee would respectfully suggest, that this whole matter be referred to the same or some other committee, with power to act for the Society, to procure the enactment of the supplement, to attend to the suit now pending, and any other that may be commenced, with power to employ legal counsel if necessary, &c. The Treasurer of the Society has paid the attorney employed to make return to the writ, and who also assisted in the preparation and argument of the case, for fees, expenses, &c., $50, for which he will present voucher.

All which is respectfully submitted.

CAPE MAY, May 23, 1876. SAM'L LILLY, *Committee.*

[APPENDIX No. II.]

TREASURER'S REPORT.

To the Medical Society of New Jersey:

Your Treasurer begs leave to report that he received during last year from all sources, $990.00, as follows:

Monmouth	$50.00
Hudson	84.00
Morris	50.00
Burlington	44.00
Essex	106.00
Camden	52.00
Passaic	60.00
Middlesex	36 00
Bergen	32.00
Gloucester	22.00
Mercer	62 00
Cumberland	34.00
Ocean	18.00
Hunterdon	36.00
Union	74.00
Warren	32.00
Sussex	52.00
Diploma Fees	30.00
Hudson (J. E. Culver)	86.00
Advertisements	30.00
Total	$990.00

There has been expended $901.18, as follows:

Wm. Pierson, (Rec. Sec'y,)	$13.00
Wm. Elmer, (Cor. Sec'y,)	5.83
J. M. Reuck, (Programmes,)	7.00
S. Wickes, Chairman, (Transactions,)	491.04
S. Wickes, Chairman, (Expenses,)	15.51
John Lilly, (Attorney,)	50.00
S. Wickes, Chairman, (Supplement,)	305.30
Murphy & Bechtel, (Notices,)	1.50
J. M. Reuck, (Certificates,)	12.00
	$901.18

Balance on hand.....	$88.82
In Savings Fund.....	1,542.02
Total on hand.....	$1,630.84

Your Treasurer would recommend the annual assessment to be continued at $2.00 per capita.

WM. W. L. PHILLIPS, *Treasurer.*

[APPENDIX No. III.]

REPORT OF CORRESPONDING SECRETARY.

TRENTON, MAY 22, 1876.

To the Medical Society of New Jersey:

The Corresponding Secretary would respectfully report, that he has attended to the regular duties devolving upon him during the year past.

The Transactions for 1875 were duly received and distributed in the usual manner—to honorary members, to some of the medical journals, and to other sister Societies. We have this year had the pleasure to receive in exchange the printed Transactions of every State Society except for Vermont, Rhode Island, Missouri and Nebraska; and as some of these make only biennial reports, it is probable that we shall next year reciprocate with ALL the States. As the inspection and comparison of the different State Societies' proceedings may prove interesting and profitable to the members present, they have been placed before you at this meeting for your convenient perusal.

In this Centennial year our Society refers with just pride to the fact that our State Medical organization antedates by a decade our national independent existence. It was therefore deemed proper that the supplement, containing the "Rise, Minutes and Proceedings of the New Jersey State Medical Society, established July 23, 1766," from 1766 to 1800, affording authentic documentary evidence of our being the oldest State Medical Society in existence, should receive a general distribution throughout our sister Societies. Copies have accordingly been sent by the Corresponding Secretary to nearly all the States, and also to the leading representative journals in the various portions of

the Union. From the latter, favorable editorial notices have since appeared in their columns.

The following official communications have been received, and are herewith submitted to the Society for its action:

(A.) A request from the Boston Society of Civil Engineers, to aid in petitioning Congress to "enact that, after some date to be fixed several years in advance, the *metric standard* in the office of weights and measures at Washington, shall be the sole authorized public standard of weights and measures."

(B.) A request from the President and Secretary of the International Medical Congress, to be held in Philadelphia, in September, 1876, that we appoint delegates from this Society to represent us in that body.

(C.) A request from Dr. J. M. Toner, of Washington, appointed by the Executive Committee of the International Medical Congress, to prepare a paper on Medical Biography, for brief sketches of the notable practitioners of our State during the past century. This has been referred to Dr. S. Wickes, who is at present engaged in preparing the biographies of the physicians of New Jersey, and by whom the desired information was kindly furnished.

Respectfully submitted.

W. ELMER, JR., *Cor. Secretary.*

[APPENDIX No. IV.]

REPORT OF THE DELEGATE TO THE RHODE ISLAND STATE MEDICAL SOCIETY.

To the Medical Society of New Jersey:

Your delegate to the Medical Society of the State of Rhode Island, would respectfully report:

The Society convened in the city of Providence, June 9th, 1875, this being its sixty-fourth annual meeting. Their annual meetings were represented as not being as full of medical interest as were their quarterly ones, being more given to financial settlements and social interchange of courtesies. I was much pleased with the fact of the senior members of the profession constituting a Board of Censors, to

whom the greatest respect was shown. It was a pleasing exhibit, seeing a given number of those veterans of the profession, with cultivated dignity, presiding over and guiding the affairs of their Society.

The orator of the day delivered a well written argument on higher requirements of preliminary study being necessary to well fit candidates for the study of our profession—(citing one Eastern Medical College where the degree of A. M. was essential before attending Medical Lectures.)

I am well satisfied that this is a step in the right direction. A mind well disciplined by previous study best fits every one to profitably hear and retain medical instruction, and would add largely to the renown of our profession.

If to this was added care in the selection of our remedies, so that the most concentrated and palatable ones alone were used, a commendable and effectual blow would be given to the so-called Homœopathic system.

The plan of placing each State delegate under the special care of a member of their Society, adds largely to the pleasantness of the sojourn.

Their annual dinner was truly ALLOPATHIC in its provisions, and with the atmosphere of intimate sociality which prevailed, made your delegate feel that the Rhode Island Medical Society knew how to make visitors feel as if he was indeed among brethren.

Respectfully submitted.

ELIHU B. SILVERS.

[APPENDIX No. V.]

REPORT OF THE DELEGATE TO THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA.

Your delegate to the Medical Society of the State of Pennsylvania, would respectfully report:

That the last annual meeting of the Society being the 26th, was held in Pottsville, on June 10th, 11th and 12th, of which Dr. Washington L. Atlee, of Philadelphia, was the presiding officer. The President's Address was delivered on the evening of June 10th, in Union Hall, and was listened to by a large audience of ladies and gentlemen. The subject was "Old Physic and Young Physic," in

which the changes of half a century were compared and contrasted. In this comparison, it cannot be said that Young Physic appeared to any special advantage.

The address on Practical Medicine, was prepared by Dr. William Pepper—an honorary member of this Society—and was an exhaustive and highly practical review of the progress and present condition of this department of medical science.

The address on Surgery, was by Dr. Richard M. Levis, and was devoted exclusively to the consideration of fractures of the lower end of the radius. The author denied the existence of the fracture originally described by Barton, and known as Barton's fracture; and declared that it was the fracture first revealed by Collis, and known Collis's fracture.

The address on Hygiene, by Dr. Benjamin F. Lee, of Philadelphia, was, without doubt, the ablest literary production presented to the convention.

Dr. Curwen, of Harrisburg, read the address on Mental Diseases, in which the author took high ground that the overtaxing of children at school, without a proper moral training, was a fruitful cause of insanity in the young.

A paper, read by Dr. O. S. Allis, on the Proper Administration of Ether, and another by Dr. Lawrence Turnbull, on the Disorders of the Eustachian Tube, were of practical value, and are published in the transactions of the Society.

The social features of the Convention were of a very high order, and in receptions, banquets and railroad excursions, your delegate spent three of the most delightful days of his life.

CHARLES F. DESHLER.

HIGHTSTOWN, May 23, 1876.

[APPENDIX No. VI.]

REPORT OF THE DELEGATES TO THE NEW HAMPSHIRE STATE MEDICAL SOCIETY.

Your delegate to the New Hampshire Medical Society would respectfully report:

The Society convened in the city of Concord, June 15th and 16th, 1875—this being its eighty-fifth annual meeting—Dr. Nahum Wight,

President, in the chair, who presided over the proceedings of the Society with dignity and promptness.

Morning session was called to order at 11 o'clock A. M.; the first hour was occupied in the appointment of committees, resolutions, report of council and introduction of delegates, who were cordially received and invited to participate in the proceedings of the Society.

The President read the annual address; also orations were read and papers by visiting physicians.

The afternoon session was devoted to reports of committees.

At the evening session a paper was read on Sanitary Measures, followed by a general discussion, which finally centered on the causes of Typhoid Fever.

The morning session of the second day was occupied in election of officers and the general routine business of the closing session. The meeting was not largely attended, but earnestness and enthusiasm was evinced in all the proceedings. The papers were meritorious, showing study and care in their production. This Society at their annual meetings appoint orators and essayists, a custom which impressed your delegate as inviting a display of oratory, competition and criticism.

CHAS. O. GORDON.

[APPENDIX No. VII.]

To the Medical Society of New Jersey:

Dr. S. Weir Mitchell is a son of the late Dr. John R. Mitchell, Prof. of Theory and Practice of Medicine, in Jefferson College, of Philadelphia. Dr. M. received the early part of his medical education in that institution, where he was a most industrious and careful student. After graduating he went abroad, and spent ten years imbibing knowledge from some of the most celebrated European teachers. Upon returning, he commenced general practice, and devoted much time to experimental physiological work and research. He from time to time published important papers on this branch of medicine, which attracted the attention of the medical and scientific world. During the war, together with Drs. Munhuen and Keer, of Philadelphia, he was placed in charge of a hospital for nervous diseases and injuries, by Surgeon General Hammond. The experience here acquired was from time to time presented to the public, and also led to the publica-

tion by these gentlemen jointly, of a work on "Gunshot wounds and other injuries of Nerves." Of this work, a leading British journal says that it is valuable to practical surgeons from the many details of treatment which it contains, and that it is "specially interesting" to physiologists and nerve-pathologists, from the extreme care with which the cases appear to have been observed, the exactness and minutenes. of the description of the effects of the injuries on motion and sensations He has published valuable articles on reflex paralysis, or post paralytic chorea, and many other papers on similar subjects, which have been of great value to the profession.

In 1872 he published a work on "Injuries of Nerves, and their Con sequences." This work was based chiefly on the author's own researches. The British and Foreign Medico-Chirurgical Review says: "It is the first complete treatise on this subject the English language has been in possession of," and adds, "it is written not only up to the present time, but in many respects far in advance of it," to be referred to, now and in the future, "with the utmost confidence and satisfaction."

Prof. Gross says: "The publication of this production may be considered as forming a new era in the history of these diseases. Up to that period the whole subject was involved in mystery, and it was only by studying it in the light of clinical experience that it was successfully unraveled. The work of Dr. M. is founded on the careful observation and analysis of several hundred cases of injuries to nerves, and upon numerous experiments performed on animals with a view of determining the physiological question of the influence of pressure on nerves, elongation and separation. Of this treatise it is not too much to say that it constitutes one of the most valuable contributions to the medical and surgical science of the present day. Ever since the date of its publication, lesions of nerves have been regarded from a new stand-point." Dr. M. has also carefully investigated, experimented and reported upon the subject of snake-bites.

These researches have been published by the Smithsonian Institution. The Doctor has occasionally contributed articles to our literary magazines which have in no wise detracted from his well-earned reputation. We believe it is unnecessary to detail any further the labors or merits of Dr. Mitchell. The members of this Society have sufficient knowledge of them. The Doctor is still at work; he occupies no public position except that of Trustee of the University of Pennsylvania, and

Consulting Physician to the Hospital for treatment of nerve diseases in Philadelphia, of which he was one of the founders. He is not a teacher in any of the schools; his sphere as a teacher has not thus been circumscribed; he has been the instructor of our whole profession. Let us do credit to our Society by electing him an honorary member, knowing full well that the honor derived from the act will be reciprocal.

WM. W. L. PHILLIPS,
ROBT. W. ELMER, } *Committee.*
JOSEPH SHEPPARD.

[APPENDIX No. VIII.]

To the Medical Society of New Jersey:

Your Committee on Ethics, to whom was referred the communication of Dr. J. D. McGil, would respectfully report:

That the communication complains of the report of a case of Aneurism of the Aorta, made by Dr. H. Mitchell, and published in the transactions of this Society for 1875. Your committee beg to say, that this Society does not hold itself, or its Publication Committee, accountable for the correct report of clinical cases sent us by the Reporters of the District Societies. *They* only are responsible for the correctness of their reports, although it might be proper for us, in case of an unmistakable reflection upon professional practice, to ask the Reporter or his District Society to make correction. We have no reason in this case to regard the allusion as an intended reflection by its author, and assure the complainant that no member of our Society has designed the least reflection upon his professional diagnosis.

Your committee therefore recommend the adoption of the following resolution:

Resolved, That the Secretary of this Society be directed to forward to Dr. McGill a copy of this report.

Respectfully submitted,

SAM'L LILLY,
S. WICKES, } *Committee.*
E. M. HUNT.

MAY 24, 1876.

[APPENDIX No. IX.]

——, N. J., ——, 187

Dr._____

Please fill out the following blanks and return to me, before the the —— inst. By so doing, you will add to the material from which to make a report, reflect credit on the Medical Society of which you are a member, and greatly oblige,

Very respectfully,

_____Reporter.

☞ NOTE.—Answers are not limited to the space allotted. If necessary, write on another paper bearing the number of the question thus answered.

"A." (1.) To what extent have the diseases *peculiar* to the *seasons prevailed*, as compared with *previous* years?

"A." (2.) Have any of the diseases of this character assumed a *peculiar or unusual type?*

"A." (3.) Have you anything *new* or of *interest* to relate in reference to the *pathology* or *treatment* of this class of affections?

"A." (4.) Has the *death rate* from any of this class of diseases been unusually *high*, or *low?*

"B." (5.) Have *epidemics* of any kind prevailed?

"B." (6.) Write anything of interest in relation to the *cause*, *pathology*, *symptoms* or *treatment.*

"B." (7.) What was the *rate* of *mortality?*

"C." (8.) If an *endemic* of any kind has occurred, write a full *clinical history*, (at least of a typical case) the *supposed cause*, the *pathology*, *treatment*, and a description of the conditions under which it existed.

"C." (9.) What was the *rate* of *mortality?*

"D." (10.) Of the so-called *contagious* or *infectious* diseases, (exclusive of Variola) which have prevailed; and to what extent?

"D." (11.) Have any of the diseases of this class assumed a strongly *malignant type*, or been frequently *complicated* with some other disease, or followed by *troublesome* or *undesirable sequelæ?*

"D." (12.) What was the *rate* of *mortality* of *each?*

"E." (13.) Have you met with cases of *Variola*, or *Varioloid?*

"E." (14.) How many?

"E." (15.) Number of deaths?

"E." (16.) Of the children *under four years* of *age*, can you make some estimate of the proportion *unprotected by vaccination?*

"F." (17.) Including deaths *from every cause*, for the year ending April 1st, 187 , how does the *mortality* compare with that of *previous* years?

"G." (18.) Will you give your experience, in the use of any of the so-called *new remedies* in the *treatment of disease?*

"H." (19.) If you have a *case* or *cases* of special interest to report, please *name the subject in this paper*, and send me a *full history* of the same before the *Fifteenth day of April.*

Signature,

CORRECTION OF MINUTES.

Add after Resolutions on page 22: "The Committee also stated that there had been placed in their hands, to be read before the Society, a Memoir of Dr. Woodhull, prepared by Dr. E. Holden, of Newark; which paper they recommended be referred to the Standing Committee, with power to publish the whole or such parts of it as the Committee should deem best.

"Moved by Dr. Love —That this recommendation of the Committee be adopted. Motion carried."

ADDRESS BY THE PRESIDENT.

Gentlemen of the Medical Society of New Jersey:

Medicine to-day is not regarded as one of the exact sciences; even physicians make only a halting claim, when they style their profession the art and science of medicine. Whatever its actual or relative position in the scientific scale may be, there can be no question of its growth and vitality. From an empirical infancy, it has grown so great that it makes animate and inanimate nature alike subservient to its needs, and tasks for its benefit all pursuits and all sciences. Its great growth, however, has been from within, and this inner growth has been a real and healthy development. Whenever, and wherever, outside influences were permitted to guide or govern, its apparent progress has proved to be false and fictitious. To a greater extent, perhaps, than other sciences, it has been acted on by external influences—philosophy, metaphysics and physics have alternately taken it in charge, causing it to deviate from the true course, retarding and fettering real progress. In this year of retrospect, it may not be out of place to look back, and take a cursory glance at the more prominent and continuous of these external influences. This review must necessarily be of the most superficial character, skimming along the surface of the history of medicine, and only pausing where some larger obstruction throws a longer and deeper shadow.

The early growth of medicine was very slow; and

this slow growth was not an accident, but is the attribute and essence of all physical science. In this respect, literature and art are opposed to science, and seem to require for their growth and development, very different conditions. Wars, political struggles, social revolutions, religious strife, have been the stimuli of literary progress. Such subjects are the inspiration or the theme of the orator, poet and historian. The classic models of early Greece, were but the literary sparks, struck out by the collisions of its many little republics. The foreign conquests and intestine strifes of ancient Rome were crowned in its Augustan age. The two most illustrious epochs in English literature were preceded, the one by the reformation, the other by the second revolution. The military glories of the reign of Louis the XIV. of France were accompanied, and are now eclipsed, by the literary glories of his time. The dawn of modern German literature broke on the nation during its deadly struggle for existence with the empire of the first Napoleon. Every national literature, worthy to be named, has had a stormy cradle for its infancy.

While literature and art are but the outward expression, science is, as it were, the inner life of the material world. Like the precious metals, it is below the surface, and requires fixed thought and plodding labor to bring it to the light. Excitement and contention are antagonistic to its growth. It loves an atmosphere of silence, and like the grand forces of nature, works slowly, noiselessly and unseen, except in its results. Its direction is rather influenced by the intellectual under-current of the period, than by political or social changes.

In the history of civilization there may be recognized

three grand periods or stages of scientific development: Estheticism, or the period of philosophy; Metaphysicism, or the period of supernaturalism; and Physicism, or the period of physical science.

All three have, no doubt, existed since civilization began; but the predominance of one or other at different times, marks the epoch. Philosophy and metaphysics have ceased to be active forces in the world of intellect; their empire over the human mind has passed or is passing away. Ancient philosophy is dead, and would long since have lapsed to utter decay, but for the subtle spirit of genius, which once informed and still preserves it. The doctrines of medieval metaphysics still linger in our schools; their authority disputed, their domain abridged by the overwhelming progress of physicial science.

In the first glimpses that we obtain of medicine, either in sacred or profane history, it is associated with religion. Priests were its professors, and natural and supernatural agencies were mixed together in a sacred mysticism. When liberated from this monopoly of caste, and secrecy of hieroglyphics, it became associated with the philosophy of the day, reflecting to some extent, one or other of the prevailing doctrines of the hour. And now began its age of Estheticism, which may be said to extend from the dawn of Grecian civilization, to the fall of the Roman empire.

As the religions of this period looked upon the practice of human anatomy as a desecration of the dead, a crime to be visited by the severest punishment, a knowledge of anatomy could be only comparative. Physiology became a subject of the crudest and wildest speculations. Pathology was unknown. Indeed it was maintained that such subjects, being as it were

hidden mysteries, it was impious to pry into the secrets of the Deity. A shadow of the same spirit, it would seem, has descended to the present day; but now, instead of boldly prohibiting the inquiries of science, it is reduced to the weakness of refusing to accept the inevitable conclusions.

The study of the aspect and outward forms of disease, was the only true work left to the physician. Such work was in harmony with the intellectual tendency of the times. The cultivation and even worship of all forms of external beauty, grace and strength, was the passion of the age, and sculpture, and painting, and poetry, were devoted to this end. The medical writings of this period, that have descended to us, have been conceived and executed in the esthetic spirit. The works of Hippocrates, Areteus and Celsus are models of descriptive disease. Modern minuteness may have here and there been able to add an additional touch, but the bold outlines as drawn by these master hands, are still as true to nature as they were two thousand years ago. Many of their descriptions have been abbreviated into current phrases, by which a few words are made to represent a perfect picture.

Co-existing with, or more properly speaking, an extension of this worship of external beauty, was the desire and longing of the mind after abstract beauty. Thereupon rose systems of philosophy which speculated on man's moral and material nature; on the analogies of the vital forces which maintain life, and of the physical laws which control the world of matter; on the harmonies of soul and body, of earth and stars. Pythagorus took even a higher flight, and with a fanciful, yet sublime ideality, aspired to hear and interpret the music of the spheres.

instrument of power—intellectual superiority. As captive Greece is said to have subdued her Roman conqueror, so Rome in her own turn of servitude cast the fetters of a moral captivity on the fierce invaders of the North." This influence extended from the hut of the peasant to the palace of the prince. It began with the first consciousness of life, and only terminated within the shadow of the tomb. It directed education, guided the policy of statesmen, controlled kings, colored and overshadowed all the intellectual efforts of the time.

Medicine sank under the general yoke. As it was formerly an appendage to philosophy, it now became a species of religion. The religious orders monopolized it. The speculations of Plato and Pythagoras gave place to the visions and reveries of the devotee and fanatic. Disease was looked upon as a visitation of the anger of the Almighty, and faith and prayer were esteemed the remedies capable of averting or removing the infliction. This simple reliance on the Deity soon degenerated to beliefs and practices alike abhorrent to science and to religion. Charms and divinations—fragments of dead creeds—were raised up and rehabilitated in Christian guise. Demonology became an assured article of popular faith, and, as in Ancient Mythology, each river, grove and plain, had its tutelary demi-god, so in the medical philotheism of the Middle Ages, each particular disease was placed under the charge of its special demon. This phase of medical superstition long retained a hold on popular credulity, and it is only within the memory of some still living, that certain forms of cerebral disease ceased to be considered as evidences of demoniac possession. The belief which deprives man of personal responsibility, whether it be

the belief of superstitious ignorance or fanatical refinement, takes from him all incentive to independent thought and action, and tends to throw him into a lethargy of mind and body. Into such lethargy was the practice of medicine plunged. From such torpor there could have been no awakening, had not the hand which administered the bane supplied the antidote. The religious orders established Medical Schools—the earliest and best known at Sarentum and Naples—where the relics of ancient medical knowledge were cherished, and the more recent Saracenic additions of fact and commentary heartily welcomed. From these centres emanated the first faint streaks of light, harbingers of the coming dawn. The earlier rays of science, however, were tinged and refracted by the media through which they passed. Astrology and alchemy, which now arose, occupy a middle place between supernaturalism and science. These pseudo sciences required observation and experiment, and while the object was delusive, the method was correct. Their ascendancy marks the first step from pure supernaturalism to scientific research.

Medicine, no longer passive and supine, dares to investigate and interpret, becomes imbued with fresh life and enters on a new phase of existence. No longer the mere instrument of a predominant influence, no longer absorbed in philosophy, or oppressed by supernaturalism, it assumes a more independent position, looks abroad and applies or appropriates every new discovery in mechanics or mathematics, in the physical and even in the abstract sciences.

Sciences are social, related and inter-dependent. Their mutual contact and inter-locking are too evident to need illustration or assertion. Even poetry, which

has not advanced any claim to be enrolled as one of the exact sciences, is considered by Cicero to have some title to recognition. Advocating the claims of the poet Archias to Roman citizenship, on the ground of literary eminence, the orator not only asserts that poetry is entitled to scientific fellowship, but proclaims, in a sweeping generalization, that all arts, ministering to the wants of man, are bound together by the bonds of kindred. "Etenim omnes artes quæ ad humanitatem pertinent, habent quoddam commune vinculum, et quasi cognatione quadam, inter se continentur." To common sight, poetry and science appear as far apart as the poles. It would seem as if between them there could be neither contact or communion; and yet recent discoveries have disclosed the fact that in many instances the poet had, by the intuition of genius, anticipated the slow research and patient labor of science. The atomic theory of Lucretius, which remained dormant for two thousand years, is now being hatched into light and life under the incubation of Tyndall. Even anatomy, the most practical and prosaic of all pursuits, is indebted to the imagination of Goethe, who insisted on the existence of an intermaxillary bone as necessary to complete the harmony of anatomical evolution.

We now come to view medicine in its association with modern science; and this association presents itself under two opposite if not hostile aspects. Under the first, science attempted to explain vital phenomena by material laws; under the second, medicine employs the resources of science to aid in the discovery of vital laws. This present age is brilliant with physical discoveries; matter has been analyzed to its simplest forms, and the laws and forces which govern the atom

in its separation, or in its hugest aggregations, have been established. As each fresh discovery burst on the world, the medical theorist laid hands on it, and attempted to solve the shifting mysteries of life, health and disease, by the established laws of matter. Thereupon arose all kinds of theories—mechanical theories, mathematical theories, electrical theories, chemical theories—which shifted, changed and re-formed with the endless and fantastic variety of the pictures in a kaleidoscope. Most of those theories are dead; a few at best retain a questionable vitality. In the hurry to find a key which would unlock the secrets of life, the principle of life, the vital principle, was overlooked. This error pervaded all the earlier scientific biological speculations.

This error still lives. Electricity and chemistry are still called on, not only to elucidate but supplement the action of the nervous system; not only to explain but supplant the process of digestion. All the known laws of all the known sciences, have been in turn applied to explain the phenomena of life, and all have successively failed. Failure never brings despondency. The attack is renewed under a new form, and the battle still goes on between the principle of life and the laws of matter.

The application to medicine of the systems of philosophy, of the dreams of supernaturalism, and of the laws of physical science, have been all alike an error and a delusion. Philosophy and supernaturalism cannot be accepted as guides, as medicine is a physical science. The physical sciences cannot be permitted to control, as the physicism of medicine is tempered by vitality.

Medicine is then a special and to a certain extent an independent science.

It has its method of learning, its isolated facts, its general laws. It is the science of observation. It is built, case upon case, fact added to fact, and when the same phenomena occur under the same conditions, we can draw our induction with a certainty as unerring as calculations based on established physical laws. The uncertainties of practice are not in the science, but in ourselves; in our failure or inability to observe or appreciate the main and modifying conditions. The profession is now working in the right way to attain a correct interpretation of the phenomena of health and disease. A more than scientific accuracy of observation is required, as there are so many modifying powers, and a high philosophic capacity for generalization, so that each force and condition be allowed its full weight in the final estimation.

What we know positively, is simple, direct and luminous; imperfect knowledge is confused, involved and theoretical. Old Homer threw protecting clouds around his weak-kneed warriors; we envelop in theory our defective science. Lord Bacon, in his work undertaken for the advancement of learning, thus characterizes unbased scientific speculation: "For the wit and mind of man, if it work upon matter, which is the contemplation of the creatures of God, worketh according to the stuff, and is limited thereby; but if it work upon itself, as the spider worketh his web, then it is endless, and brings forth indeed cobwebs of learning admirable for the fineness of thread and work, but of no substance or profit."

We now come to look at the association of science with medicine under the second aspect—that of an assistant.

While science cannot be acknowledged as a despot

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tematic order the physical conquests already achieved.

The modern scientist may not be able to see the present connection, or trace the distant association of each scientific fact as it comes to light. He has, however, an abiding faith that science, like time and space, is indefinite and can have no limits. The chemist and microscopist had no more idea of the extensive field of future research, which their minute labors were opening for their successors, than had the inventor of the mariner's compass any thought that his despised invention would disclose a new world for the benefit of future generations.

"They builded better than they knew." They laid the solid foundations of a new philosophy of medicine: a philosophy such as Bacon foreshadowed, and Des-Cartes initiated. A philosophy founded on physical truth, and built up by scientific induction; a philosophy not of leaves, but of fruit; not of theory, but of fact; the philosophy of modern sanitary science.

This new philosophy lifts our profession from detail to generalization; from the individual to the community. It may be compared to the modern science of war. Individual prowess counts for nothing—victory being organized before the forces take the field. State medicine or sanitary science, in like manner, anticipates the coming of disease, knows its favorite haunts, and the conditions necessary for its propagation—meets it here with closed gates, cuts off its supplies there, either repelling or reducing it to inaction or forcing it to die of inanition. This philosophy is still in its infancy, with the promise of a fruitful future. If the work of the present day be any indication of the coming triumphs in this direction, the time may come when hereditary and moral influences will be traced

ESSAY.

BY JNO. S. COOK, M. D., OF HACKETTSTOWN.

OUR CLIMATE, AND ITS EFFECT UPON DISEASE.

Dr. Rush tells us in one of his essays that "the ancient Jews used to say that a man does not fulfil his duties in life, who passes through it without building a house, planting a tree, or leaving a child behind him." I think my friends who were instrumental in placing me in my present position, must have been convinced of the truth of this ancient adage. It is but a truism to say that from the earliest civilization man has been negligent in the performance of duty. So prone are we to attend to the attainment of the present object, that we neglect the pursuit of many aims, not unworthy of persistent effort. By your kindness you have brought me to realize more clearly my obligations to our profession and to this Society; and however remiss I may have been, allow me to promise that hereafter I will endeavor to atone for all past derelictions of duty, by a cheerful and hearty effort to fulfil every obligation imposed, and a more ardent devotion toward the advancement of the interests which form the foundation of our Society, and for the promotion of which it was instituted.

The operations of nature are ever simple, and she attains her ends by the most familiar means. The deeper we penetrate her mysteries, the more clearly it appears that the most complicated phenomena in the visible world, are due to a few forces. The force that

makes the apple fall to the ground, causes the different planets to revolve in their orbits.

The agencies which have produced the successive changes in the earth's crust during past ages, are the ordinary agencies which we see around us every day. It has been supposed that volcanic and other subterraneous eruptions, earthquakes and subsidence of the land, were the agencies which effected these changes. But it is now generally believed, that the valleys were not the product of violent dislocations, nor the hills of sudden upheavals, but were actually carved out of the solid rock, silently and gently, by heat and cold, frost and snow, rains and rivers, ordinary and familiar agencies. It will be observed that these are the ordinary meteorological and climatic agencies, and that these constitute climate. The various peculiarities or modifications of climate result from a preponderance of one or more of these agencies over the rest. When heat, for example, predominates, we have a hot or tropical climate; when cold and frost predominate, we have a rigorous or arctic climate; with moisture in excess, we have a damp and rainy climate, &c. "But these climatic agencies are not only the factors which carved out the rocky face of the globe into hill and dale, and spread over the whole the mantle of soil; but by these are determined the character of the flora and fauna that exist on the soil. These are determined mainly by the character of the climate, and not by the nature of the soil and conformation of the ground. It is from difference of climate that tropical life differs so much from arctic, and both these from the life of the temperate regions." It is climate that causes the orange and the vine to blossom and the olive to flourish in the South, but denies them to the North; that

enables the forest tree to grow on the plain, but not on the mountain-top.

These phenomena belong not to the present age alone, for the geologist finds in his investigations that both polar and temperate regions have witnessed, since climates began, changes of climate and of life in wonderful succession, and in periods of immense duration. The causes which have wrought these changes have been investigated by the most eminent scientists of our time. Maury, in our own country, and Humboldt, Sir John Herschel, Thompson and Carpenter in Europe, have investigated the subject in many of its aspects. But to Mr. Croll, the difficult problem is given to solve, which he does, by attributing not only great secular changes of climate, but the distribution of temperature upon the earth's surface, at the present time, to causes which alter the volume, intensity and direction of the trade winds and other prevailing winds of the globe. In maintaining his views, he criticises the theories of Maury and of Carpenter, each of whom attributes marine circulation to difference of specific gravity of the water, rather than to the winds; the question at issue being not the amount of heat received from the earth's surface, but the means by which it is distributed.

Dr. Franklin, who by his truly great simplicity of mind, was in such intimate relations with nature, and therefore understood her so intuitively that he found a ready solution for many of her apparent mysteries, suggested that the gulf-stream had its origin in the trade-winds. Mr. Croll renews these views, and finds in the great wind-currents and chiefly in the trade-winds a cause adequate to the result. We cannot follow into details his exhaustive inquiries. But he

finds the winds and ocean currents to coincide all over the globe. The waters move with the general set of the trade-winds, the direction of the one being a reliable exponent of the movement of the others; and it is therefore obvious, that any influence which changes the direction of the winds, will also affect that of the currents. Causes, therefore, which alter the force and directions of the trades are adequate to change the climates of the globe; and, in the opinion of Mr. Croll, these causes are found in variations in the earth's path around the sun, combined with the precession of the equinoxes. It is not claimed, however, that these changes are the direct result of the increased distance from the earth to the sun, but are the result of physical agents thus brought into operation. As the distribution of heat is the controlling condition of all climates, and the basis of climatological distinction of every sort, the present arrangement of sea and land is the best that could be devised for the accomplishment of this end. We have in the Northern Hemisphere two immense oceans, the Atlantic and Pacific, extending from the equator to near the pole, and between these lie the two Continents—the Eastern and the Western. Owing to the spherical form of the earth, far too much heat is received at the equator, and too little at the poles, to make this portion of the earth's surface a suitable habitation for man. The functions of the waters of these two oceans is to carry this superabundant heat to the temperate and polar regions. Aerial currents could not do this, as the greater part of the heat conveyed by them is dissipated into space. The functions of these aerial currents is to distribute heat thus conveyed over the land, and by this two-fold arrangement depends the thermal condition of the globe.

That there have been investigations made, through private as well as governmental agencies, which go to prove that there is a connection between the meteorology of the sun and earth, is well known—but as yet we are ignorant of its exact nature. That there exists a meteorological period connected with the sun's rotation, and that the convection currents of the earth appear to be connected somehow with the state of the sun's surface, as regards spots, and that the cyclones of the Indian ocean are most frequent when there are most sun spots, are theories lately presented; and that the rain-fall, at least of the tropics, is greatest in years of maximum solar disturbance, and that there is a cycle of terrestial temperature, having apparent reference to the condition of the sun, is deduced from recent observations. The disturbances of the magnetism of the earth, are most violent during years of maximum sun spots, and that there is likewise a reference in magnetic phenomena to the period of the sun's rotation about his axis; and that the moon has an action upon the earth's magnetism, that is not altogether of a tidal nature, but depends in part at least upon the relative position of the sun and moon, we have strong grounds for believing.

From the different observations made, it is philosophical to suppose three distinct effects upon our globe are produced by the sun.—1st. A magnetic and meteorogical effect, depending somehow upon his rotation. 2d. A cyclonic effect, depending upon the disturbed state of his surface; and 3d. The well known light and heat effect.

We must admit that our knowledge in regard to these influences of the sun upon the earth is imperfect and speculative. But with the attention given to them,

and with the improved means of investigation employed, we can hope at least, that ere long, for hypothesis, we may have scientific deduction; and that in discoveries to be made through them, we may be able to explain many of the phenomena which connect our luminary with the earth, and which may make plain to us the many enigmas we meet with in explaining atmospherical and terrestial influences, in their effects upon disease.*

Most of the surface of the eastern portion of the United States is but little elevated above the sea, and is quite uniform in character. In its natural state it is well wooded, and all cultivable, with equally distributed rains, and therefore little in regard to climate depends directly upon the surface character. All the highlands belong to the Appalachian system, or the several ridges of a broad belt, which are included under the general name of the Alleghanies. These elevations are not high enough, or are the ranges sufficiently continuous, where high peaks are found, to cause contrasts of climate on their opposite slopes. The higher portion of these ranges, which lie at an

*An interesting investigation of the phenomena connected with the atmosphere of the sun, as shown by the spectrum, has been lately published by Mr. Langley, of the Alleghany Observatory. Observations by different astronomers prove that the surface of our luminary is less bright at the edges than in the centre, and this fact has been taken as proof that its atmosphere is an absorbing one. Mr. L. states that this atmosphere is a thin stratum, which cuts off one-half of the heat which otherwise would reach us, and any diminution or increase in the absorption would affect us to a very great degree. For example, an increase of twenty-five per cent. only, would lower the mean surface temperature of our globe by one hundred degrees Fahrenheit. The existence of the present order of things on the earth's surface would therefore seem to depend upon the steadiness of the sun's atmosphere. To what extent these fluctuations of temperature may have contributed to the Glacial Epoch already past, and what changes similar movements may be preparing for us, in some remote future, are questions worthy the consideration of the scientist.

elevation of from 1,200 to 1,500 feet above the sea, and one or two small areas, which reach an elevation of 3,000 feet, have probably more rains than the plains lying between them. But as the climate of these areas is modified only by a diminution of temperature of about one degree for 300 feet of altitude, and by a moderate increase of humidity, neither of these operate in a degree so great as to entitle these mountains to the important place as climatological agencies which the mountain ranges in Europe and on the Pacific coast invariably hold.

This uniformity of climate is embraced in a district which includes all of the continent east of the 100th meridian, excepting the points of local influence at the coast and near the great lakes, and is its most distinguishing feature; associated with it, is the changes of temperature and the oscillations of every sort which strike over the district, as changes over any plane surface.

These movements and disturbances generally move across the country from west to east, as though they were the incident of the belt of westerly winds prevailing over most of the area.

Prof. Coffin has deduced from a mass of observations, that such a belt of westerly winds prevails, and all the considerable clouds and storms so move, even when appearances indicate a reverse movement. The visible clouds may be driving from the northeast, southwest, or south, yet these are subordinate clouds; the incident of a saturated atmosphere and of higher clouds from the west. Franklin long since noticed this characteristic of our northeast storms—that in approaching us they travel against the prevailing winds.

In the Temperate Zone, or in that portion of it occu-

pied by the Middle Atlantic States, we are so situated, both geographically and topographocally, as to suffer but little from violent fluctuations in the amount of rain-fall, as compared with some other sections of the globe. It is roughly estimated by competent physical geographers, that the amount of water annually taken up into the air by evaporation of the surface of the land and sea, and which is annually precipitated by rain fall, is equal in amount to a depth of sixty inches spread over the entire surface of the globe. This is the annual average for the whole earth, but where it falls it is not spread evenly as to quantity or as to the seasons. At Philadelphia, the annual average, as computed from records since 1825, kept at the Pennsylvania Hospital, it is very near 44½ inches. This is the annual average for the last fifty years. In thirty of these years the amount was something between 40 and 50 inches; in the remaining years, either below 40 or above 50 inches. The extremes were in 1825, when it was 29.6 as the minimum, and in 1867, the maximum year, when it was 61.2 inches, more than one-fourth of this last mentioned amount, fell in the single month of August of that year.

The amount of rain-fall is distributed with apparent evenness throughout all the months of the year. The average for the month of February for fifty years, is the smallest of the year, being a very small fraction over three inches (3.014), while the month of August, for the same period, gives us the highest average, being slightly over four inches and six tenths (4.6); all the other months of the year show averages between these two.

The great storms of our coast begin with the latter part of August, and their annual record shows a

marked increase in their force and destructiveness as the summer departs.

The old notion of equinoxial storms has been nearly abandoned by modern students of the weather; yet the fact that storms cluster somewhat nearly about this period of the year, can scarcely be denied. To say that the tropical cyclones start in two belts, surrounding the earth at an equal distance from the equator, which they never cross; that the trade-winds, on their edges start the eddies which develope into revolving storms, and that these clyclones in their forward movement are chiefly influenced by the earth's revolution, may be true, without affecting the question whether the frequency of great storms at this period of the year is not in some measure related to the changes of the seasons, or in other words, to the position of the earth in its orbit. In the work of the signal service, we have only arrived at the early stages of its capacity. It is a great triumph to be able to predict the weather for a few hours, or perhaps days, at a given station. But when a sufficient number of generalizations have been attained, when we know better how and why and where storms originate, when a far greater number of observations has determined the period of the year in which each of these is to be anticipated, we will have arrived at a much clearer and full understanding of the movements of the atmosphere, and a much more trustworthy science concerning it.

Prof. Loomis, in an address before the American Academy of Science, has given us some new hints as to the origin of our cold weather. The centre of the area of low temperature he finds nearly coincides with the centre of area of high barometer. This coinci-

dence, he thinks, cannot be accidental; and in a series of comparisons he finds that in a larger majority of instances, if there is a low barometer at a given point, a high barometer is found at a locality to the south east, at a distance of about 1,200 miles on this continent; observations in Europe give the same result as to coincidence and direction, but the distance is about 1,700 miles. In both continents the high barometer is also associated with low temperature. Thus when there is an area of low barometer in Alaska, there is an area of high barometer accompanied by cold, about the middle of the United States; when there is a low barometer in Iceland, there are records of high barometer and cold at Paris and Vienna. In general there is a flow of air to the central position of an area of barometer, and it seems necessary to assume that the air thus concentrated must rise and flow out above.

But it is shown that with an area of high barometer, there is a steady flow of air outward, and therefore that air must be descending from above within that area, and must be continuously supplied, as the outward flow is not accompanied by a falling barometer. It therefore seems probable that if within an area of low barometer the air is ascending, and simultaneously within an area of high barometer it is descending; the air which goes up in the one, comes down in the other. But there is a law of compensation always at work, which may interfere with our assumption that this theory may account for our cold spells.

The capacity of air for heat depends upon its density. If carried to a height the air expands, and pound for pound of air, there is the same amount of heat in it, in all directions. As we ascend, with rarity of air, we find increase of chill, until if we could be

carried alive into celestial space above the limits of the atmosphere, we might experience a temperature near 400 degrees below zero.

This theory was accepted by Prof. Henry as partly explanatory of areas of cold.*

As to the question of permanence of climate, a large mass of historical and statistical matter might be presented; but the evidence is, that there has been no sensible change in the climate of Europe, within the historic period, and none in the climate of America since its settlement. La Place has shown that the mean temperature of the mass of the earth cannot have changed in any appreciable measure, within the entire period embraced by astronomical calculations, and that none can occur while the planetary movements remain what they now are. Climate belongs to the physics of the earth's mass as distinctly as do the tides, with the exception of the exterior agency of the sun's heat; and if we determine that to be constant, all that remains may be treated according to the rules applicable in every other department of physics. The surface of the earth and its geological structure, have at some remote interval undergone great changes, but there are none now in progress which are sufficiently important to influence the climate in any degree.

According to the theory of Mr. Croll, changes of climate must have arisen from general and not from any local cause or accidental combination of causes, and his conclusions only impress our minds with the

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rof. Loomis, in tracing storms across the Atlantic, from America to Europe, Vest to East, finds they have a tendency to bend northwards, and that verage velocity on the Atlantic Ocean is nineteen miles an hour, but over nerican Continent the rate is twenty-six miles an hour.

immensity of the time required in some of the most obvious of nature's operations. His computations extend backward three millions and forward one million of years. 240,000 years have elapsed since the period of the greatest eccentricity of the earth's orbit occurred to which the last Glacial Epoch is referred, and it closed about 80,000 years ago.

The eccentricity of the earth's orbit is diminishing at the present time, and in a little less than 24,000 years it will be as nearly circular as it ever can be, and no cycles of extreme heat or cold will occur for the next 150,000 years.

Humboldt makes the following reference to the United States, in his views of nature: "The statements so frequently advanced, though unsupported by observations, that since the first European settlements in New England, Pennsylvania and Virginia, the destruction of forests on both sides of the Alleghanies has rendered the climate more equable, making the winters milder and the summers cooler, are now generally discredited." And Dr. Noah Webster, after the most extensive observations, comes to the conclusion "that the hypothesis of a moderation of climate, appears to be unsupported." From the earliest observations in this country, commencing in 1738, with regard to the annual mean temperature and rain-fall, and in compilations of the records made by Prof. Henry, we find no material change; we must, therefore, conclude that there has been none worth considering. Although the greater constants, the mean temperature and mean quantity of rain-fall remains the same, there is a local humidity, which may be dissipated by the draining of lands or removing of forests and building of railroads; and it is in these that

man's agency in influencing climate must be recognized.

New Jersey occupies a geographical position between the 39th and 42d parallels of North latitude, and as it forms a part of the great eastern slope of the North American Continent, it has extreme climatic features common to the North Atlantic States and the Mississippi valley, modified, however, to a considerable extent by its proximity to the ocean. Compared with some of the larger States, its extent is limited and its surface configuration is so slightly varied from that of a great plain, excepting the highlands in the north and western portions, that there is a remarkable uniformity in all the general features of its climate, and the variation is scarcely sufficient to admit any accurate division of the State into climatological provinces, or areas, having distinctive characters as regards their mean temperature, distribution of heat according to the seasons, amount and periods of rain-fall, &c.

The gradation in the mean temperature for the year in going from the north to the south, amounts to one and six-tenths degrees (1.6°) of latitude which corresponds with the mean varieties of the Atlantic coast, and is equivalent to five degrees (5°) between the extreme northern and southern points of the State.

The greater altitude of the northern part of the State lowers the mean annual temperature of those parts two (2°) or three (3°) degrees. The general uniformity is further disturbed by local causes, as elevation above the sea-level, proximity of mountains or of the ocean; but we are as yet unable to define the limits of these disturbing agents. Taken as a whole, however, this disturbance from these local causes is scarcely appreciable, so that from its position there is

a blending of the continental and oceanic influences, making it more equable than that of the interior States, yet not so uniform as more insular districts, or the western slopes of the continent which are more exposed to these softening influences of the ocean. The mean annual temperature of the southern end of the State is between fifty-three (53°) and fifty-four (54°) degrees, and that of the northern end forty eight (48°) to fifty (50°) degrees. The isthormal lines of these means show that the average temperature of New Jersey is higher than in the corresponding latitude of the Middle and Western States, as they include the northern parts of Virginia, Kentucky, Missouri and the southern part of Pennsylvania, Ohio, Indiana and Illinois. The mean temperature for the summer months of that portion of the State south of Philadelphia, is seventy-three (73°) to seventy-four (74°) degrees; that of the northern counties varies between seventy (70°) and seventy-two (72°) degrees. The mean of (70°) runs through Pittsburgh, Cleveland, Chicago and St. Paul, while that of (74°) crosses the Western States at Cincinnati, Springfield and Rock Island. For the winter months, the mean temperature of the northern portion of the State ranges between twenty-eight (28°) and thirty (30°) degrees, and that that of the southern between thirty-two (32°) and thirty-four (34°). The isothermal of thirty (30°) crosses the south-eastern part of Pennsylvania and through the central or south central portions of Ohio, Indiana, Illinois to central Kansas, running most of the distance south of the 40th parallel of North latitude. The winter mean of thirty-two (32°) to thirty-four (34°) also tends slightly south of west in crossing Maryland, Virginia, and so on near the line of the Ohio River to St Louis.

The modifying influences of the ocean raises the mean temperature of the winter and lowers that of the summer; so that the isothermal lines for the year run westward nearly parallel to the corresponding lines of latitude. Those of the warm months curve northwards after crossing the Appalachian ridges; and those of the winter are slightly deflected towards the south. The curvature of these summer and winter isothermals going westward, shows also the greater range between the mean temperature of the warm and cold seasons, indicating a more unequal distribution of heat throughout the year. A series of observations has shown the average range in places near the sea is less than it is further inland, and also going northward it is greater than at more southern localities, features characteristic of the whole eastern slope of the continent.

The longer ranges accompany the greater extremes; the greatest mean range is either in the winter or spring months, and the least mean fluctuation during summer. But neither the mean temperature nor the mean range exhibit such marked difference between different points of observation, as do the extremes.

The greatest range, at a point representing the northern portion of the Kittatinny Valley, is one hundred and three (103°) degrees. The April minimum temperature of the northern point of observation generally fall seven and six tenths (7.6°) below that of Greenwich, and in October this difference averages seven degrees (7°), being almost equivalent to a month in the progress of the spring, and also the same length of time in the lateness of the autumn.

The annual mean quantity of precipitated moisture is quite uniform throughout the State; not however to

the same extent as the temperature, since the variations in the fall of rain and snow are more irregular, and the areas of distribution are often very much circumscribed, and local causes are more potent. From observations at eleven stations, extending through an aggregate period of 151 years, the average amount per annum for the State is 43.84 inches or a little over three and a half (3½) feet. The annual mean at Goshen, taken as the representative station of the Kittatinny Valleys is 34 inches, showing the greatest variation from the State average. The average quantity at Greenwich is given as (41.4) inches, and that of Paterson is (55.8) inches, and of Newark (45.68) inches: showing Paterson to be under some local influence which makes its rain-fall considerably greater than that of Newark.

From observations taken at stations selected as representing all the important surface features and districts of the State, the variation runs from 34 to 55.8 inches, or if we exclude Paterson and substitute West Point, as typical of the highlands, the range is from 34 to 46.5 inches. The distribution of this amount is not uniform for the seasons at eleven places whose observations are longest. May is shown to be the wettest in eight (8) and August in the remaining three (3). January and October are the driest months. The summer season has generally an excess of two inches over that of winter, and the spring exceeds that of the autumn. These observations show a remarkable uniformity among these stations in the distribution according to the seasons, as well as the uniform ratio that prevails between the amounts of the several seasons, and that the mean monthly fall varies little from one-twelfth of that of the year. From all

the records obtainable, there are no proofs that the climate of New Jersey has materially changed since the settlement of the State in the seventeenth century.*

The difficulty in determining to what extent climate alone may affect any given disease, lies in knowing precisely how far other causes may operate in producing it. That there are diseases, each having its specific cause, and the latter only producing each its particular disease, is rational and almost demonstrable. We are acquainted with many of the conditions under which the causes are developed, and we know many of the laws of their operation, but we have yet to learn their nature. The discovery of one special cause might lead to a similar knowledge of other causes.

If we could attain a knowledge of their nature, we would be directed, almost by intuition, to the discovery of the means of destroying them, or to the neutralizing of their morbific operation, and thus the most destructive of the acute diseases would be prevented or arrested in their progress. It has been claimed that these special causes are either animal or vegetable organisms, and on this assumption is based the "germ theory of disease." To those of us who heard the late Prof. J. K. Mitchell lecture twenty-five years ago, the theory of the cryptogamic origin of many diseases comes up, with all the cogent evidence and argument, as presented by that distinguished medical teacher.

We need many more facts to determine the influence of the atmosphere in the production of disease. Why do warm, equable climates engender disease of the

* As an act of courtesy, as well as of justice, we take pleasure in acknowledging our indebtedness to Prof. Geo. H. Cook, for assistance in furnishing valuable material in regard to the Mean Annual Temperature and Rainfall of our State.

liver and alimentary canal? Why are cold and especially variable climates attended with diseases of respiratory system and with rheumatism? Why has the influence of the east wind passed into a proverb?

There is one of the constituents of the air most remarkable in its nature and properties, and is present in small quantities. The researches of many chemists have placed the supposition beyond doubt, that it is a condensed form of oxygen with greatly exalted chemical activity; its energetic nature or oxydizing power surpassing that of oxygen, as much as the activity of the latter excels that of air. According to the conclusions of M. Houzeau, country air contains an odorous, oxidizing substance, with power of bleaching blue litmus, without previously reddening it, of destroying bad smells, and of bluing iodized red litmus.

That this substance is ozone, that the amount of ozone in the air at different times and places is variable, but this is at most one volume of ozone in 700,000 of air, it is found much more frequently in country than in town; it is greatest as to quantity in spring, less in summer, diminishes in in autumn, and is least in winter. It is most frequently detected on rainy days, and during great atmospheric disturbances. Atmospheric electricity is apparently the great generator of ozone. Prof. Pfaff, (Braithwait's Retrospect, Vol. 46) from observations made at Plauer, in Saxony, at an elevation of 1,050 feet above the level of the sea, concludes with respect to the influence of ozone, that its presence in the atmosphere acts mischievously on diseases of the respiratory organs; that it exerts little or no influence on epidemic diseases, provided these are not complicated with catarrhal affections. An

excess of ozone in the air, whatever may be the direction of the wind, favors the development of inflammatory affections and especially tonsillitis.

Other diseases beside these mentioned do not seem to be influenced by the presence of ozone.

The geographical position of our State is such as to present within her limits the same geological, meteorological and climatic conditions as is experienced by other neighboring States, although these are modified by peculiar oceanic and other local influences, and it remains for us to determine what effect these may have upon disease. In the language of M. Boudin, "Man is not born, does not live, does not suffer, does not die in the same manner in all points of the earth. Birth, life, disease and death, all change with the climate and soil, all are modified by race and nationality."

The best source from which we should be able to derive information regarding the prevailing diseases of our State, their usual course, duration and treatment, is in the reports of our Standing Committee for the several years in which they have been published. But these are made up from data too general in their character, to arrive at a minute and reliable knowledge concerning them. This defect is not from any want of capacity on the part of the Committee, or of the Reporters in the several districts, but from the nature of the material furnished them by members of the profession. A common complaint of our Reporters is that their appeals for contributions are unheeded, thus the object to be obtained by the plan is defeated. "We can only arrive at a correct knowledge of the amount and distribution of health and disease within a given territory, through the agency of many medi-

cal observers. Loose or general statements in regard to the occurrence or prevalence of maladies in certain districts and localities, are not sufficient at the present day to meet the requirements of medical science. In figures only is there exactness, and consequently not until medical practitioners shall report every case of sickness, will it be possible to affirm to what extent a country is healthy or otherwise. In no case known to us, have statistical enquiries yielded results thus full and complete."

As we view New Jersey, we find she is among those portions of the earth in which occur almost every variety of disease. "There are, however, disorders which scarcely or never appear within her boundaries. Thus the plague is unknown this side of the Atlantic. The Dengue has never or scarcely reached so far north. The Yellow Fever has appeard, but confined within very narrow limits. Certain other disorders are scarcely or never met with as original or endemic affections, as Cretinism, Elephantiasis and Lepra. The more prevalent forms of endemic disease are of a febrile character, occurring mostly in districts or localities, the geological formation of which are favorable to the production of malaria. These maladies have types common to the periodical fevers of other States of the Union. The contagious exanthemata find here a genial climate, and are developed from time to time in all their severity; and these with other disorders prevail over the State, irrespective of latitude or topographical peculiarities."

Although the climate of our State may not be so uniform as that of California and the western slopes of the continent, it possesses elements which render it superior in many respects to the climate of many

places situated near its centre. The air which we are now enjoying, is a fair example of that which she can afford to those who are so fortunate as to be exposed to its influence.

Possessing a coast line of more than one hundred miles, she presents facilities and advantages, not only to the pleasure-seeker, but to the invalid, not to be excelled in any part of the world. The air is noted for its healthfulness, as is proven by the multitudes resorting every year to enjoy it, and is to be accounted for by its comparative dryness and its equability of temperature. The different points along her coast, which are every year receiving more attention, all possess advantages, with which our profession are becoming familiar, and of which they are disposed to take advantage in looking after the welfare of their patients.

The class of diseases which are greatly benefited by its atmosphere is a large one, and incudes all cases of rheumatic fever, arthritis, chronic bronchitis, laryngitis, incipient tuberculosis and scrofula. We need not confine ourselves entirely to the coast-line, but find this salubrity of climate extending some miles inland, "to the regions of the Pines," which for generations has been the resort of the valetudinarian and those suffering from diseases of the lungs, kidneys or digestive organs.

As there are patients with whom every physician meets, who are not benefited by the sea air, for which peculiarity I will not attempt to account; the hilly portion of the State presents just the atmosphere for their improvement and restoration to health.

In many of these, malaria is unknown, and with an atmosphere comparatively free from humidity, and

with a medium range of temperature, the invalid inhales vigor and strength with every inspiration; and many reduced to the lowest point of vitality, are restored to health, and at the same time, enjoy all the necessaries and luxuries required for the invalid.

ESSAY.

BY B. R. BATEMAN, M. D.

MENTAL PATHOLOGY AND CRIMINAL LAW.

Man is the master-piece of creative power. What artist ever conceived a piece of machinery so wise in its adaptation to a grand purpose, so elegant in its workmanship, and so perfect in its finish, as the human body? And this body is the temple of the mind, the shrine of the intellect, the home of the soul. We may not imagine, with hope of satisfactory answer, how or when the embryo becomes possessed of mental faculties, for such questions baffle the researches of science, and put to the blush the wisdom of philosophers. The little babe born into the world in the early morning, and sleeping so sweetly upon the arms of its nurse, has a something in its composition that links it with divinity, and if perchance, it should die before the setting of the sun, its parents would give it the rite of burial, and speak of it as immortal. Whence comes this immortality? At what hour in utero does the child take on the principles of an endless existence? Where is mind located in the lobes of the cerebrum? What anatomist, in his dissections, has disclosed the secret chamber of the heart, or with his microscope revealed the germs of soul-life? In reference to these and a hundred kindred questions, psychology is able to indulge in nothing better than idle speculation.

And the modus operandi of the diseases affecting the cerebral mass—those diseases that modify brain-structure, and disorder the action of the intellect—is but little better understood than the existence of mind itself. But is medicine less a science because its votaries are compelled sometimes to grope their way through subterranean passages and unexplored labyrinths in their search for Truth? Is astronomy less a science because there are stars that have never come within the range of the telescope—constellations and systems far beyond the lens of the astronomer, whose orbits have never been reckoned, and whose distances have never been computed? Is religion less a science because we cannot understand the mind of the Infinite, or by searching find out God, and demonstrate to our own satisfaction and that of others, the problem of the Trinity? Are we not rather in a world of unexplained wonders, and surrounded by an infinitude of mysteries? And is not the human body in health, and the human body in sickness, the most inexplicable of them all?

Several prominent hypotheses have been advanced to explain the existence of non-congenital insanity. The psychological, semitic and intermediate theories have each and all had their admirers and advocates. But the theory adopted by European and American alienists at the present day, "assumes the brain to be the instrument of the mind, the physical instrument of mental action, and that a morbid physical change must occur in the brain, or in its investing membrane, as a precedent fact and cause of insanity." Perhaps the peculiarities of our American life, the overtaxed state of our nervous energies, the little time one finds for recuperation, the blind subserviency of our people

to the imperious demands of fashion, the pernicious habits that the young men and women of the nineteenth century are contracting in the billiard saloon and ball-room; perhaps these, and a hundred other things, are tending to the development of those morbid physical changes in the brain that result in the derangement of the intellectual faculties. The fact is as patent as it is lamentable, that diseases of this character are largely on the increase in our country. The census reports more than 30,000 cases of insanity in our lunatic asylums; the majority of which are the beneficiaries of the State. Many other thousands, blessed with wealth, are watched and cared for by loving hands in the quiet of their own homes; while a third class, whose actions are sometimes marked by the impulses of an ill-balanced and disordered intellect, are under no restraint whatever, enjoy freedom in every thing, until an act, perhaps of a criminal nature, discloses the existence of the mental derangement, and brings the offender before a court of justice.

The victims of moral insanity are numbered, I believe, by the tens of thousands. We meet them in Wall street and in the Exchange; we encounter them in railroad cars and on ship board; we attend them professionally when sick, dine at their tables when well, and maintain with them for years friendly relations of the most intimate character. Says Dr. Geo. B. Hord, "there are numerous individuals mingling in society, and participating in the ordinary avocations of other men, whose sentiments and conduct are so peculiar as to attract general attention; but who can reason so well upon all subjects within their capacity, and whose intellect is often so clear, and in many

instances even strong, that no one questions their sanity. They are simply said to be singular or eccentric. Now the fact is, that such individuals are not unfrequently as much under the control of their morbid feelings, act as irrationally in obedience to these feelings, and are morally as little responsible for their acts, as others who carry out in their conduct some false conclusions of the intellect." And then, inexplicable as it is, we know that persons in the perfect possession of their mental faculties are sometimes seized with the propensity to commit an insane act without any appreciable motive or object whatever. Sometimes they rush headlong to the act in obedience to the impulse, which takes them, as it were, by surprise, so that they have apparently no time for resistance. In other instances the impulse is less immediate and powerful, and the patient is able to hold out against it until the morbid condition of brain, in which it originates, ceases spontaneously, or under the influence of remedies. The tendency is most striking when it takes, as it not unfrequently does, a violent or illegal direction. There is reason to believe that an insane impulse has oftentimes impelled individuals to take their own life, and that of others. Have we not had several lamentable instances of this kind in our country during the past year? Was it not an impulse of this nature that lead Ralston, the banker-prince of California, to commit suicide? And was it not a fit of momentary insanity that drove Albert W. Markley, a name known to many of you, and honored as well as known, to cast his body in the waters of the Delaware?

History furnishes many instances of moral insanity among those who have adorned the highest pages of

literature. Poor Cowper was the victim of a hypocondria that embittered his life from early youth to old age, made him the most miserable of men, and sent him to his grave with the darkness of delusion still veiling his spirit. The poetry of Cowper, that has stirred the heart of unnumbered thousands, and melted to tears with its sweet tenderness, was much of it written when he was dejected in spirit, and continually haunted by the spectres of a monomaniac. The world was to him the translation of Homer, and yet the world but little knows the darkness and gloom that enshrouded this "unhappy chief of genius," as he prosecuted for weary years his task. Cowper was insane.

And the question of Lord Byron's hypochondria will not be disputed by those familiar with his writings. Its various protean forms are there set forth in language which affectation could not forge, nor fiction mimic. "I must write," says this brilliant poet, "to empty my mind, or I shall go mad." It was a paroxysm of melancholy that gave to the world one of the most humorous of his productions, and produced in a single night a poem which has immortalized his name. With what exquisite pathos, in Childe Harold, does he refer to those circumstances which had such a depressing influence upon his life and character.

> "I have thought
> Too long and darkly, till my brain became
> In its own eddy boiling and o'erwrought,
> A whirling gulf of phantasy and fame;
> And thus untaught in youth my heart to tame,
> My springs of life were poisoned."

Again, the student of history familiar with the character of Dr. James Johnson, well remembers those

exhibitions of mental depression which rendered him so terribly sad beyond expression. Johnson's melancholy manifested itself at the early age of twenty, and increased in intensity as he advanced in years. The leading symptom of his hypochondria was the apprehension of death, and every day appeared to aggravate his terrors of the grave. Like Metastasio, he would not permit the word to be pronounced in his presence. His disease, which embittered his life from early manhood, cast a shadow of deepest gloom over his dying hours.

History furnishes many instances of this character. But why multiply examples? The mental delusions of Cowper, and Byron, and Johnson, and Pope, and Burns, and many others equally well known to the student of literature, have been given to the world with minutest detail by their biographers. These all were men conspicuous above their fellows; and the public to-day, and the public a hundred years from to-day, will read with avidity every circumstance of their sad history that gave color to their thoughts, and stimulus to their life-work. But how many thousands of cases of hypochondria there are, scarcely known beyond their own roof-tree, who live and die the victims of a monomaniac delusion. I have known them in the pulpit, at the bar, in the ranks of our own profession, and in the walks of private life.

So numerous are the cases of hypochondria that it becomes an exceedingly difficult question for even a forensic physician to decide between real and simulated insanity. If a crime is committed, the cry of the populace is, "the perpetrator is insane; no man in his senses would be guilty of such a cold-blooded deed." Artful lawyers avail themselves of this existing

opinion, or so present the cause of their client as to create the belief, and thus the jury acquits the criminal upon the plea of insanity, and sets him at liberty, with his hands red, perhaps, with the blood of his brother. "My client is insane," says the lawyer, and insanity is not incompatible with the prosecution of a profession, nor does it incapacitate one for the discharge of the ordinary duties of life. Cowper was insane, and yet wrote the sweetest of poetry; the bard of Scotia was the victim of hypochondria, and yet stirred the heart with his tender lyrics; Napoleon was subject to epilepsy, and yet led a vast army and conquered his enemies; Mohammed sometimes fell into terrible convulsions, and yet drew unnumbered thousands after him in the establishment of his new religion. "Now, you may have known this man," continues the lawyer, "from boyhood, and may never have suspected him insane; he may have been successful in his business, upright in his dealings, pure in his morals, and blameless in his life; but he must have been the victim of an emotional insanity, or he would never have been arraigned before a court of justice upon the charge of murder." Now is it any wonder that twelve men, who in ninety-nine cases out of a hundred, know nothing about physiology or psychology, or the relation of mind to body, or body to mind, should be mystified by such pleadings, and should be ready to swear, when they are released from the jury box, that all the world has gone mad, and they alone have escaped to tell it.

The facility with which this plea of insanity may be used, and the influence which it always exerts upon the minds of a jury, when skillfully employed by a shrewd barrister, has defeated the ends of justice in thousands

of cases, and turned upon the community unpunished men, who ought to have hung as high as Haman. A man in a fit of anger sends a ball through the head of his fellow, and when brought to trial, the jury are told that the criminal was insane. Medical experts are examined to substantiate the assertion, and the jury, unable to distinguish between anger and insanity, give the prisoner the benefit of their doubts, and set him at liberty.

Wharton reports Briand as saying, that from the height of passion to madness is but one step, but it is precisely the step which impresses upon the act committed a distinct character. It is important, then, to know exactly the precise characteristics of the passions and of insanity. But here science fails, for it must be admitted that we are unable to point out the place where passion ends, or where madness commences. M. Orfila draws the following distinction between a man acting under the impulse of the passions and one urged on by insanity. The mind is always greatly troubled when it is agitated by anger, tormented by an unfortunate love, bewildered by jealously, overcome by despair, humbled by terror or corrupted by an unconquerable desire for vengeance. Then, as it is commonly said, a man is no longer master of himself, his reason is affected, his ideas are in disorder, he is like a mad man. But in all these cases, a man does not lose his knowledge of the real relation of things; he may exaggerate his misfortune, but this misfortune is real, and if it causes him to commit a criminal act, this act is perfectly well-motived. Insanity is more or less independent of the cause that produced it; it exists of itself; the passions cease with their cause, jealously disappears with the object that pro-

voked it, anger lasts but a few moments in the absence of one, who, by a grievous injury gave it birth. Violent passions cloud the judgment, but they do not produce those illusions which are observable in insanity. They excite for a moment sentiments of cruelty, but they do not produce that deep moral perversion which influences the madman to sacrifice, without motive, the being he most cherishes.

Was it not a fit of anger that sacrificed the life of Dr. Parkman, at the hands of Prof. Webster, in 1849? Did any one ever venture to intimate that the repeated demands of Dr. Parkman for the payment of the claims due him, had driven the Prof. insane; that the latter, goaded by an insane impulse, had invited the former to his laboratory in order that he might take his life, and that the arm which struck the fatal blow acted in obedience to the impulses of a disordered intellect? Was it not understood then, and is it not believed now, that Prof. Webster killed Dr. Parker in a fit of momentary anger? And did not the city of Boston, and all the country approve, even when they mingled tears of sympathy with their approval, of the verdict that demanded the life of the Professor in atonement for the life of his victim?

Now the thoughts already expressed in the essay, and those which are to follow, have had their origin in the recent decision of a criminal case by the District Court of the County of Cumberland.

On the 19th of March, 1875, Chas. K. Landis entered the office of Uri Carruth, the editor and publisher of the *Vineland Independent*, and learning, upon inquiry, that Carruth was temporarily absent, awaited his return. While thus waiting, he employed the time in reading. Immediately upon the entrance of Carruth, Landis

deliberately arose and presented a revolver. The editor fled through a door into the composing room, closely pursued by his antagonist, who fired one shot, the ball lodging in the base of the skull. The wounded man fell to the floor and was supposed to be dead. In reply to the employees of the office and others, Mr. Landis said, "I have killed him; I was obliged to do it; I killed him in the cause of God and humanity; I am sorry for it; I hope he will not die." Friends hurried to the scene and found Carruth still living; a bed was extemporized in the composing-room, and he was given into the hands of experienced surgeons. In the meantime, Landis was incarcerated in the county jail. Weeks passed on, and Carruth, with the ball still in his brain, began a gradual convalescence. In the month of June he was so far recovered that he took, by the consent of his attending physician, a trip into New York State, and remained there until the first of August. Soon after his return to Vineland, certain complications of an unfavorable character presented themselves; he grew rapidly weaker, and very unexpectedly died upon the 23d of October, 1875. Landis who had been at liberty upon bail, was remanded to the county jail, and at the January term of Court, 1876, was tried for the wilful and deliberate murder of Uri Carruth.

It was known that a feud had existed between these parties for many years; that Carruth had prostituted the columns of his "paper" to the vile purpose of a slanderous and personal attack upon the name and reputation of Landis; that this course
had been persisted in week after
after month, and that the imm
shooting was an article writt

reflecting upon the character of Mrs. Landis, which article came to the notice of her husband upon the morning in question.

When the case was opened by the defence, the community was amazed beyond expression by the plea of insanity, strongly put in behalf of the prisoner. The defence did indeed review the matter of mal-treatment, and tried to show that certain abscesses in the region of the wound were caused by unskillful and officious probing, upon the 12th of May, twenty-two days after the reception of the injury; and that the deceased, having steadily refused to allow them opened, died in consequence therefrom. But it was quite evident that the question of mal-practice had but little weight with the jury. The verdict turned upon the plea of insanity.

A better understanding of this case may require a brief statement as to the character and work of the defendant. Chas. K. Landis is a lawyer by profession; early in life he became interested in colonization, and after a successful effort at Hammonton, N. J., he entered more largely into the scheme, by purchasing in 1861, 30,000 acres of woodland in the township of Landis, county of Cumberland. By judicious advertising he soon called around him settlers from all parts of the country, and the beautiful town of Vineland, numbering 6,000 inhabitants, after a lapse of fifteen years, rewarded the energy and enterprise of its founder.

During these years, Landis did an immense amount of business in real estate; was interested in everything that promised to promote the welfare of the town; [illegible]sly watched the highest interests of its citizens, [illegible] to Vi[illegible] an enviable reputation for order,

He spoke much in public, wrote much for the press, travelled much abroad, mingled with men everywhere, and yet no one ever broached a suspicion of his insanity. Its first intimation came from his counsel during the farcical trial; and so skillfully was it handled, that the twelve intelligent men who constituted the jury, after an absence of forty-eight hours from the court-room, returned with a verdict of *not guilty, upon the plea of insanity.* Two days thereafter, an examination was made by order of Judge Reed, into the mental condition of Mr. Landis, with a view, as I suppose, to his incarceration in a lunatic asylum, but having been pronounced in open court perfectly sane, he was set at liberty, and continues the prosecution of his business as before, blasted in reputation, it may be, but unharmed in body. He steps aside but for a moment to avenge himself of the wrongs inflicted by his adversary, imbues his hand in the blood of his persecutor, silences forever the pen of criticism and the tongue of slander that had so often annoyed him, and when brought to trial for the highest crime known to the court, by the maneuvering of his distinguished counsel, escapes the gallows, escapes the walls of a prison for life, or any limited number of years, escapes even the imposition of a fine to cover the cost of prosecution, escapes everything of a punitory nature, and all upon the plea of insanity! Well may the goddess of justice in the State of New Jersey veil her fair face in shame, and clothe herself in the habiliments of mourning.

Things are coming to such a pa
that it is almost impossible to cor
nal. The rich take the law
redress real or imaginary wr

er, and then bribe justice with gold, and blind a half-starved jury with voluminous testimony, proving the deed to have been committed in a fit of emotional, momentary, or invisible insanity. "I should not be afraid to go before any jury," said Landis, months before the shooting of Carruth, "with that man's blood upon my skirts." Is it not time for the intelligence of our country, in the interests of religion, morality and good government, seriously to consider where we are drifting in the matter of penal punishments?

During the past six years there have been 281 murders in the city of New York, and 274 of the murderers have escaped the gallows. The penalties of the law inflicted only in seven cases! Will human law be regarded, or human life respected, under such a lax administration of justice? The shrewd lawyers of the metropolis, by their strategic dodging, "plea of insanity," "stay of proceedings," and applications to the Court of Pardons, are every day thwarting the ends of justice, and every decade turning upon the community a battalion of homicides to repeat their merciless acts.

Is it not time that the criminal laws of our country were so modified as to adapt them more thoroughly to the requirements of psychology? Have we not come to that period in the national life, when the public good demands the abolition of the death penalty—demands its abolition because in nine cases out of ten the law has become impotent for the punishment of criminals? Does not the history of crime in this coun- [illegible] that the most terrible punishments cannot [illegible] and [illegible] not the severity, but the [illegible] ds in check the wicked

passions of men? The experiment of abolishing capital punishment is not altogether new in our country. Five States have tried it. Michigan led the van in 1846, and during the first thirteen years after the repeal of the death penaly, there were thirty convictions for murder. During the next fourteen years, with an increase of 50 per cent. in her population, there were only twenty-six convictions. These figures furnish an argument in favor of a change in our penal legislation, and such a modification of criminal law as shall insure certainty of punishment. Wisconsin, Iowa, Rhode Island and Maine, have each and all followed the example of Michigan, and are so well satisfied with the repeal of the law and the substitution of imprisonment for the gallows as to refuse the restoration of the statute.

I am aware of the arguments used against the abolition of capital punishment. I know that it has been urged that imprisonments generally end in pardons, and that thus, in the majority of cases, criminals escape the just punishment of their criminalty. But could not the laws be so fixed as to prevent the possibility of such an occurrence, and make the punishment as certain as the crime? Impressed with the importance of a radical change in our penal legislation, I venture to make the following suggestions, viz:

1. Imprison for life every person convicted of murder.

2. Make the disposition of the case a final one, putting it forever beyond the reach and influence of the Court of Pardons.

3. Forbid any plea for acquittal on the ground of insanity.

4. Abolish trial by jury in case of capital crime

and let the evidence be submitted to a court of Judges.

5. Interdict impassioned appeals of lawyers to the sympathy of the court, and let the facts as they fall from the lips of witnesses, under oath, decide the case in hand.

6. Make imprisonment for life to mean, hard labor and compulsory education.

Now in addition to these or similar changes in our penal laws regulating the trial and punishment of criminals, many of these questions which have heretofore been considered from the stand-point of ethics only, must be referred to medical science. And this brings me in conclusion only briefly to notice the relations which educated medical men sustained to the general question under consideration, and for which our profession ought to be held responsible by an intelligent public.

I. It is the duty of medical science very sedulously to inquire into these morbid states of body and mind that so often instigate acts of a criminal nature. The records of our penitentiaries and prisons prove beyond question that the perpetrators of crime in almost every instance, are men not possessed of "*mens sana in corpore sano*," but rather those whose bodies have been enfeebled by disease, or a long continued course of dissipation, which in the end provokes a sympathizing feeling on the part of the brain, and a partial derangement of the mental functions. Now can medical science do anything to prevent or in anywise mitigate these crime-producing causes that are every week consigning to everlasting infamy those, who with proper care and a helping hand, would have become useful citizens in the community? The State Medical

Society of New Jersey has given considerable attention to the subject of Hygiene, and very wisely, for the subject is one not only of vital importance, *per se*, but it has a direct bearing upon, and sustains an intimate relation to, the general question of crime. Remove from any community, so far as you are able, those causes producing disease, and you not only insure to the people a vigorous condition of body, but you guarantee thereby a healthful state of morals. Take away that "cause of all causes," that annually consigns in this country, 60,000 men and women to a drunkard's grave, and fills the cells of every penitentiary in the land with the poor victims of the damning vice, who, weak in body, destitute in circumstances, and frenzied in brain, are driven in a moment of desperation to the commission of a criminal act that casts a shadow over all their subsequent life. I hold it to be the duty of medical men very patiently and impartially to investigate the history of crime, and use their undivided and collective influence to bring medical science under contribution for the speedy relief of the causes.

II. Educated medical men must recognize that exalted position which they hold as citizens of our commonwealth, irrespective of their professional status. How often is it true that the physician is the best educated man in the community. It is he who gives direction to public sentiment, and moulds to suit his fancy the opinions of the populace. He is regarded as the conservator of public morals, and is expected to lead the van in the prosecution of reformatory measures. And then, aside from this private and social influence, the sons of Esculapius are found in State Legislative Councils, in the halls of Congress, upon

the bench of Judges, and in the chair of State, clothed with Gubernatorial honors. Now is it not within the province of our profession, in each and all of these capacities, to inaugurate a spirit of reform? What class in the community should be more Argus-eyed than educated physicians? Our profession does not reach its ultimatum in the administration of hypodermic injections, the prescription of pellets and powders, the amputation of a limb, or the removal of a tumor. The bravest men that ever shouldered a musket were those who fought with Cromwell; but when the battle was over, and the uniform was exchanged for the garb of the civilian, Cromwell's invincible soldiers were found to be the most trustworthy of citizens. We have no right to divorce those obligations which as physicians we owe to a suffering humanity, from those duties which as citizens we owe to the State. If criminal acts are being multiplied in our country, it is manifestly the duty of our profession, not only to institute an inquiry into their history, but to consider the provisions of law for the punishment of criminals, and the probability of the execution of such laws in the light of recent statistics, and urge upon the attention of the people, and their representatives in legislative bodies, such reforms as in our judgment will conduce to the highest social, moral and religious well-being of the nation.

III. And finally. We are living in times when educated medical men must guard against bending their influence in thwarting the ends of justice, and shielding from punishment those known to be guilty of penal offences. Esau sold his birthright for a mess of pottage. For thirty pieces of silver Judas betrayed his Master. Honor and honesty are not concentrated

in the medical profession. Gold has tampered with conscience, and bought the reputation of many devotees of our science. I remember seventeen years ago, when a student of Anatomy, in the dissecting rooms of College Avenue, the now distinguished Prof. of Surgery in the University of Pennsylvania, in pronouncing his farewell address, made use of the following language: "The physician is assailed by the devil with one of his strongest temptations. He attacks the cupidity of his nature. 'See,' he says, 'here are the kingdoms of the world; all these, and the glory of them, will I give you, if thou will but worship me.' How my heart pains me when I think there is not strength enough in every member of our Society to say, 'Get thee behind me, Satan.' Immense sums are offered, yea, and received, for criminal purposes, and there are those in every great city, who grow affluent upon revenues acquired at the expense of conscience, life, body and soul." I did not fully understand the meaning of those words, seventeen years ago; but I understand them to-day. At such a time as this, medical men should look well to their honesty of purpose, integrity of heart, and purity of life; at such a time as this, when crime sits with brazen effrontery in the Cabinet of the nation, and stalks unblushingly through the land, from ocean to ocean; at such a time as this, when our centennial songs have much of the quality of Bacchanalian orgies, and there is mingled with every thrill of joy the bitter tear of mortification. At such a time as this, how beautifully apropos the words of Holland, the poet:

> "God, give us men! a time like this demands
> Strong minds, great hearts, true faith and ready hands;
> Men whom the lust of office does not kill;

Men whom the spoils of office cannot buy;
Men who possess opinions and a will;
Men who have *honor; Men who will not lie;*
Men who can stand before a demagogue
And damn his treacherous flatteries without winking;
Tall men, sun-browned, who live above the fog
In public duty and in private thinking;
For, while the rabble, with their thumb-worn creeds,
Their large professions and their little deeds—
Mingle in selfish strife, lo! Freedom weeps,
Wrong rules the land, and waiting Justice sleeps."

ESSAY.

BY E. P. TOWNSEND, M. D.

MEDICAL HEROISM.

Mr. President and Gentlemen:—As your appointed essayist, I have no apologies to make; but I fear that before I have finished, the necessity for an explanation will become apparent.

Some three months since, our honorable Secretary, Dr. Pierson, had the coolness to demand of me the title of my forthcoming essay. Imagine my position, to name offspring before its birth; what absurdity! How could I tell but that the thing might present itself in some abnormal shape, and delivery be impossible; or, worse yet, it might be "still-born."

I must, therefore, claim your indulgence, if, under the title of "Medical Heroism," I get switched off the track, and bring in material entirely foreign to the subject. I can recollect the time when a great many people thought and expressed the idea, that when a young man was either too weak, or too lazy, to make a successful farmer; too awkward for a mechanic, or too dumb for a minister or a professor, the best use you could put him to would be to send him to a Medical College and make a doctor of him. In later days, most people recognize the fact, that to be a successful physician, the student must possess all the inherent moral and mental qualifications [illegible] as an educated, polished gentleman. [illegible]

common sense, (that rarest of all kinds of sense), and erected upon this basis, a careful medical training.

Among the moral qualifications integrity, purity, sympathy for suffering, and charity are deemed essential, but no one seems to think that bravery and heroism are at all requisite; I shall, therefore, assume the position that every practitioner of medicine is either brave or ignorant.

The young medical student who sits quietly poring over his books, or who picks up the medical journals of our day, or who as he advances to college and sits from day to day listening to the flowery lectures of the course, or in the dissecting room studies the perfect and wonderful mechanism of the human form, is apt to leave his alma mater with the idea that the grim tyrant, death, will loose his fangs on his intended victim and disappear at his bidding; but when he reaches the bedside of his first critical case, and tries his vaunted remedies, and fails, his courage and his conceit are very likely to ooze out at his finger ends. I well recollect my own experience in that line. I received my first call with considerable pride, as it was to a leading lady of the neighborhood, but the nearer I approached the house the greater I appreciated the responsibility I was about to assume. On reaching her bedside I asked her attendants all the questions I could possibly think of, (for the patient was apparently insensible), and the more answers I received the more I became confused, until I was ready to swear that she was full of "itis's" all the way through, from Iritis to Metritis, and was racked by all the pains from tic-douleureux to gout in the toe, and finally lit upon the happy idea of sending six miles through darkness, mud and mire, and dragging my invalid father

from his midnight slumbers to aid my diagnosis. He came, he saw, he conquered all my difficulties, all my conceit, and my dying patient's hysteroidal troubles with a stout dose of valerian. "Oh what a fall was there, my countrymen!" I was weaned.

So long as differences exist in the constitutional characteristics of patients, it will be impossible for authors and teachers to lay down rules or plans of treatment that dare be taken as an infallible guide; and although thorough medical education, clinical training, and a good library of medical authorities are indispensable to the practitioner, he must possess bravery enough to cut himself loose from their thraldom and pursue such a course as his own judgment may dictate, even though adverse to the recognized practice, with a full knowledge that if he does so, and the case terminate unfavorably, he will be open to criticism and censure.

Irregular or quack practitioners who are ignorant of the mechanism of the human body, the laws of health, the symptoms and ravages of disease, and the effects of remedies, may be extremely bold, for they know no danger, and therefore feel no kind of responsibility. To them it is a blessing that the grave covers their blunders.

The heroism that makes men march in solid column up to the cannon's mouth while belching forth its deadly showers of grape and canister, or mount the ladder, in the midst of lurid, scorching flames and suffocating smoke, or plunge into the rushing, seething torrent, to save a life endangered, is of one kind; but the heroism of an intelligent physician who stands by the bedside of his patient surrounded by anxious relatives and friends that depend on him for aid, and scan

every expression of his countenance that they may anticipate his opinions, and calmly and coolly decides his course, even though his brain be racked with anxious thought, not only as to what he shall do, but when he shall do it, is of a very different type.

Let us imagine a scene, and I presume I will have no difficulty in bringing it before your minds, although I am no artist, for I presume no physician present has escaped one or more such cases. You are called from your bed some stormy, dismal night, to the bedside of Mrs. B———, and, remembering her condition, you grasp your forceps and such other appliances as are at hand, and when you reach her, find her laboring under convulsions—puerperal convulsions. I dare not attempt to describe the scene—memory alone can paint it in all its hideous forms. You are alone, perhaps miles away from medical assistance; the agonized friends are looking to you alone for aid. You must think for yourself, act advisedly, and accept the consequences, not in the result of that case only, but in your reputation thenceforth, for if your case result unfavorably, you have none to verify your diagnosis or support your practice. Your patient, perhaps, lies insensible, the convulsions occurring at short intervals, teeth clenched and deglutition impossible; pulse quick and bounding; labor, perhaps, scarcely commenced; pains slow, weak, or entirely deficient; the os undilated, and yet you feel that the treatment must be early delivery or death. In the twinkling of an eye you review your authorities. Shall you bleed and reduce the life current? that must be your stay and support should your patient reach the stage of convalescence. Shall you use anæsthetics? they are, perhaps, miles away. Shall you use forceps? the os is

not sufficiently dilated. What shall you do? Could you but quiet that heart, and prevent it from forcing so much blood to the overcharged brain, and thus relax the system, you feel that you might save your patient's life. But she is insensible, she cannot swallow; your endermic syringe and your veratrum are at hand--the remedy that will control the circulation, and the instrument that enables you to introduce it. Dare you use them? You have no authority. Neither Meigs or Hodge or Ramsbotham or your more recent authorities have recommended them, and yet, having a certain end to accomplish, and the means at hand, your duty to your patient and to the friends who have trusted her life in your hands, demand that you have courage enough to be an authority unto yourself.

But again: your patient may be anæmic instead of hyperæmic, and the above course not admissible, you decide upon craniotomy. With your index finger you can barely reach through the slightly dilated os what you believe to be the vertex of the child, and with a prayer upon your lips for wisdom to guide you, you plunge your vectus into the brain of a living child perhaps, to save, if possible, the more valuable life of the mother; then toil on for hours to remove piece by piece the fœtus, and with every nerve that has been strung to its utmost tension, now unstrung; every faculty of the mind exhausted, and perspiration reeking from every pore, rest from your labors to find your patient in the last gasp of death. The bravery, the heroism that nerves a man to such a post of duty is of a kind that no monuments can portray, no obituaries faithfully record.

You may have been called to see a child, and find it suffering with membranous croup, a foe that, unless

unseated at once, will hurl its victim into eternity. The stridulous breathing, the quick inflammatory pulse, invite you to the battle. How will you fight? Will you meekly order your demulcent drinks, your warm foot baths, with a few drops of hive syrup or ipecac, or will you bravely grapple with death, and, knowing that he is certain to conquer on the one hand, take the little sufferer under your own control, and rather risk his death with your full doses of veratrum and emetics, than fold your hands and see him perish by strangulation?

The gentleman who places himself, his wife, or his child in the hands of a physician, has a right to expect that physician to be, not only qualified for his duty, but brave enough to assume any responsibility that the exigencies of the case may require. He who takes no step, except at the instigation of his medical authorities, and prescribes after their recommendations only, soon becomes a mere routinist, and in those acute cases where death stares the patient squarely in the face, too often finds that while he is weaving theories, his patient has slipped from his fingers, for want of prompt assistance. But it is folly for me to waste any more valuable time or arguments to prove a position which all are willing to admit, and as I am determined my effort (as essayist) shall be meritorious in some respect, I will let that merit be—its *brevity*.

REPORT OF STANDING COMMITTEE.

The Standing Committee has been furnished with reports from all the District Societies, maintaining their relations with the State Society except Ocean county, which, having just been organized, we suppose, has not placed itself in complete working condition. The committee received a letter in April, from the last secretary of the Somerset District Society, stating that it had held no meeting for two years, and that it may be considered as disorganized. The reports received are mostly full, and evidence care in their preparation. Complaints are expressed in some of them, that the members of the local societies do not respond to their personal duties in rendering a record of their medical experience. We may hope that those who are faithful to duty, will provoke their associates to good works; that this is growing to be the case, is manifest by the experience of the last few years.

The general health of BERGEN COUNTY has been as good as the preceding two or three years. In Hackensack there has seemed to be an entire absence of all epidemic influences, or more correctly, an entire absence of all manifestations of such influences in the prevalent diseases of the year. There have been less malarial fevers than usual, but the more common serious results of malarial poison have been

manifest in the different forms of neuralgia, which yield only to large doses of quinine. In regard to malaria, there were a great number of cases of a peculiar character, both pernicious and marked fevers, some of them being typho-malarial, many of them not to be designated by any distinct type, because of the absence of distinctly marked pyrexia or apyrexia, running their course without any, or with only slightly developed febrile manifestation, with little more than general malaria. Dr. Hopper, who has noticed these cases, remarks that he does not share in the opinions of that class of medical observers who always associate malaria with swamps and other low lands, and who find in them the almost exclusive and prime factors of its production, and believes that its origin is in and around our dwellings, the products to be classed among preventable diseases. They are the direct result in many cases, of the inhalation during the hours of sleep, of an atmosphere poisoned by mephitic gases from out-door water-closests, in proximity to the open windows of sleeping apartments. In Park Ridge there was a continued decrease of intermittent fevers; early in the winter diphtheria and scarlet fever appeared in different localities, and were more or less prevalent during the winter and spring; many of the cases were severe and complicated. In Ridgewood and vicinity the prevalence of dysentery was noteworthy, approaching an epidemic. Diphtheria was rife, and its fatality in some places fearful. The same disease has prevailed extensively in the lower part of the county, particularly in Carlstadt and vicinity. In Englewood there have been an unusual number of cases of pneumonia of a decided malarial type, confined chiefly to the

young. There was also much whooping cough. Influenza and other affections of the air passages, and rheumatism, with a few sporadic cases of diphtheria in a mild form.

BURLINGTON COUNTY in its medical history presents nothing of particular interest. In Beverly, measles and whooping cough were the only epidemics. During the fall and winter, bilious remittent and intermittent fevers prevailed to some extent, with a few cases of typhoid of a low grade. During the spring a great many cases of catarrh occurred, affecting the nose, throat, frontal and maxillary sinuses, and extending in many cases to the eustachian tubes and ears, attended with a severe spasmodic cough, and in many instances in complete aphonia. In Tuckerton the year has been one of universal health along the shore, but at Bass River a fearful scourge of diphtheria has existed during the greater part of the winter and spring. Dr. Reeves, the practitioner there, has treated about one hundred and fifty cases in a population of eight hundred. He estimates that one-quarter of the population of the infected district was affected in a greater or less degree. Its mortality reached about 10 per cent. The complaint was confined to an area of about six miles square. The evidences of contagion were, in the estimation of Dr. Reeves, quite manifest. In Mt. Holly during July, August and September, in a limited locality of the town and on the border of the low meadows, at times overflowed by high tides, there were a number of cases of typhoid fever, made peculiar by its rapid co
speedy emaciation and enteric symptoms w
The majority of the cases occurred i
four years of age; most of the case
ment.

In CAPE MAY COUNTY the only epidemic was influenza. Sporadic cases of scarlet fever, pertussis, measles and diphtheria appeared, and of a tractable form.

In CAMDEN COUNTY, throughout the whole year, scarlatina and diphtheria have prevailed, but not to any great extent. During the autumn some cases put on a malignant type in the city of Camden, where seventy deaths occurred. Some cases of whooping cough and enteric fever presented themselves during the whole of the year. About the middle of February, variola appeared in Camden City in a locality where typhoid fever was then prevailing, opposite to which a culvert emptied its noxious contents on a large marsh; nearly all the cases of typhoid fever which the reporter met with were found here, and all the cases of variola were also in the same locality. The close proximity of the place wherein these two diseases were found, suggests very forcibly the close relation between putrefaction, fermentation and zymosis.

CUMBERLAND COUNTY has experienced a general prevalence of health. The only diseases mentioned by the reporter as worthy of record, is membranous sore throat, which was epidemic, followed by a genuine epidemic of influenza. In Millville, erysipelas was epidemic during the spring months. The reporter says that it is observable that there is a gradual increase of nervous affections in his district.

In [illegible] of the acute inf[illegible] the principal [illegible] measles),

scarlatina, pertussis and parotitis. The former raged in the city of Newark and its suburbs, and also in Montclair during the colder months, proving fatal in many cases. The epidemic of German measles was extensive, but did not prove severe. It seems to be a disease distinct from measles, from which, in the majority of cases, a diagnosis can be easily made. Pneumonia has been endemic in Orange, East Orange and the western part of the city of Newark, during the last two months. Typho-malarial fever appeared among the guests of the Prospect House in Montclair, about the 1st of August, caused by defective sewerage. The cases of diphtheria in Montclair seemed to have been caused, in almost every instance, by depraved sanitary conditions.

In GLOUCESTER COUNTY whooping cough has prevailed extensively, being persistent rather than peculiar; quite fatal to very young infants. Scarlatina has also been endemic. Very different, the reporter says, is this present epidemic from that of three years ago. Then there were many cases and very few deaths; now with comparatively few cases, there are very many who die, either by the original violence of its onset, or of the throat complications, or of the nephritic or constitutional sequela. In the neighborhood of Paulsboro, diphtheria has been endemic, for a time, very fatally. During the colder months, in the place of the now distinctive affections of the air-passages, minor ailments have existed, of which it may be said, their name is legion. So unusual is the number of them, and so uniform and pronounced their symptoms, that the reporter believes them to constitute the essential expression of a

tinct epidemic tendency. Few have escaped. Malaise, unaccountable depression of strength and spirits, rigors, aching over the whole body, particularly in the calves of one or both legs (oftener in the left), soreness of the flesh, and the aggravation of existing predisposed disorders. These are the leading characteristics of what the laity term "this cold that's going around."

HUDSON COUNTY has been marked by an unusual amount of sickness, and has suffered by the prevalence of diphtheria to an unusual degree throughout the year—no section of the county has escaped. Elevated sites, surrounded apparently by the most favorable conditions, have been affected alike with the tenement house on the low grounds where the conditions to invite disease are present. Its extent is indicated by the fact that diphtheria and croup (most of the latter of which was diphtheria) was the accredited cause of death in 17⅞ per cent. of all the deaths during the year in the county. Pneumonia, mostly of an asthenic type, was prevalent during the winter. Scarlet fever, mostly in a mild form, was unusually prevalent. Rubeola, of a very severe type in many instances, has been very common during the spring. Its marked feature was the unusual length of the prodromic stage. The various sequelæ of the disease were more frequent by observation than usual. Bronchial and intestinal catarrhs during the winter, and gastro-intestinal lesions during the last summer, were unusually prevalent.

[illegible] HUDSON COUNTY has been healthy. There [illegible] few [illegible] demics, but of a mild form. Those [illegible] scarlet fever and diphtheria.

In MERCER COUNTY diphtheria was epidemic in Trenton in the autumn; at first very malignant, proving fatal in some families to the number of three or four. Its virulency soon disappeared, and upon the whole, the number of deaths among those affected was quite limited. Its contagious nature was quite manifest, as its diffusion through a limited district was traced to one or two centres. Bronchial catarrh has been wide-spread in the county, and quite severe in its manifestations. It was for the most part self-eliminating, requiring little treatment. Scarlet fever has been more frequent than usual in Trenton, mild in character, with few deaths. The disease was communicated to the Children's Home by one of the children wearing a garment, made up by a woman who had a child sick with the disease. The child was taken sick, and seventeen out of fifty-three children in the institution were brought under its power. In Hightstown, pertussis has been epidemic. Diphtheria was sporadic in form, but very fatal.

MIDDLESEX COUNTY has suffered by a scourge of Diphtheria. During the past five or six months there have been in New Brunswick over 250 deaths from the disease. The reporter estimates the mortality there to have been 20 per cent. The comparative rate in South Amboy is estimated at about the same. Pneumonia during the winter and spring; cholera infantum during the summer; rubeola, roseola, and scarlet fever during the fall and spring, and fever in various forms have occurred in their usual frequency. In Cranberry, bilious remittent fever, running into typhoid and typhus, occurred—50 of the cases within 800 yards of a slaughter

house, and nearly all fatal. In Dayton, miasmatic fevers of a mild type were very frequent.

In MONMOUTH COUNTY the general health has been good with one or two exceptions. Long Branch and its vicinity has been scourged by diphtheria of a most malignant type, attended by great mortality, leaving few families who do not mourn the loss of some little one, and, in some cases, it has counted all among its victims. In other parts of the county the disease has been sporadic and of a mild form.

MORRIS COUNTY is reported as experiencing an increase of disease. In addition to the ordinary contagious diseases of childhood, diphtheria was endemic in Rockaway, Boonton and Middle Valley. In the former place there were probably 150 cases, 12 per cent. proving fatal. In Middle Valley the percentage of mortality seems to have been materially affected by the methods of treatment, allusion to which will be made hereafter. In Boonton the mortality was about 20 per cent. Scarlet fever, generally of a mild form, has been quite generally observed. Roseola very general, but requiring little professional attention. Measles has been largely epidemic over the county, except a district within a circle with a radius of four miles, thickly populated, and having within its limits 15 practicing physicians. An interesting fact in connection with this immunity from the general epidemic is, that just here, in '71 and '72, an epidemic of Rubeola Nigra of a malignant type occurred, with fatality in very many cases. For the past year not a single case is known to have appeared in this district. Gastric disease was much observed during the past summer and autumn, and dysentery endemic in some

places. Cholera morbus is noted by the reporter as a common affection among the iron miners, sometimes proving fatal. A large proportion of the cases occur among foreigners of the laboring class. The reporter feels assured that change of climate is the predisposing, while the change of diet is the exciting cause.

In PASSAIC COUNTY our reports relate chiefly to Paterson, which has been visited by Scarlatina and Diphtheria Of the latter there have been many cases and a large per centage of deaths. Scarlatina appeared with its usual variety of type, some cases being very malignant and others so mild as to require no medical treatment These diseases, with influenza, are all which are noticed by the reporter.

WARREN COUNTY has had an amount of sickness above the average of past years. The prominent diseases prevalent were dysentery, typhoid fever, diphtheria, measles and pneumonia. The dysentery was not of a fatal character—two or three deaths occurred from the accession of cerebro-spinal symptoms, complicating the intestinal affection. Diphtheria was very prevalent at Oxford and in Washington. Measles has been wide spread, commencing in October and continuing to the present time.

[The report for SUSSEX COUNTY was received by the Committee too late for examination, and is appended to this report with other papers.]

A review of the medical history of the year exhibits, with a single exception, a diminished amount of disease throughout the State. The ordinary contagious forms in children have appeared as before, Measles being rather in the advance [illegible]

peared in less amount and with less serious manifestations than in former years. Fevers, Remittent and Intermittent, have not claimed the attention of physicians to any degree. Diphtheria has been the only prevalent affection, and it has been the scourge of the year. This general condition of the diseases of the year, has been associated with a meteorology somewhat unusual; the past summer being generally cool, and distinguished by numerous and severe rainfalls, and the winter open, with little rain or snow, the spring opening about twenty days earlier than usual.

In Therapeutics the reports afford many valuable suggestions, a few of which the Committee notice.

In the use of Quinine a growing disposition is manifest to employ it in very large doses. When cerebral excitement attends its use, Dr. Clendenin, of Bergen, employs a saturated watery solution of camphor as a vehicle which he says counteracts its effects upon the brain. Salicylic acid has not met the expectations of many physicians, while others have met with good results, used externally and as a gargle in throat affections. The Chlorine treatment in sore throats of Scarlet Fever and Diphtheria has impressed many practitioners with its great value. Large doses of Tr. Ferr. Chlo. Et. Potass. Chlor. administered every 10 or 15 minutes, "as a rule acts like magic." So says the reporter from Bergen.

In the Erysipelas reported in Cumberland County, a favorite local application of the Doctors was a mixture of Comp. Tr. of Cinchona, Quinia and Tr. of Iron, painted upon the surface when the eruption assumed a brown hue. Chlor. of Potash is recom- [illegible] by D[illegible] Newell, of Cumberland, in larger [illegible] usually prescribed. He believes that

its inefficiency is due to the limited quantity used, rather than to its lack of remedial value.

Dr. H. W. Coleman, of Trenton, emphasizes the use of *Monsel's Solu. of Iron* in diphtheritic sore throat, and says that it promises better success than any other remedy yet offered to the profession. This opinion is based upon an experience of eight years. His sentiments as to the mode of cure, and his method of applying the remedy, are given in full in his paper upon the subject herewith submitted.

Dr. Farrow, of Morris County, employed in an endemic of Diphtheria cold water and ice to the throat externally; Carbolized Lime Water inhalations; Chlor. of Potash when the patients could gargle, and in severer cases, a room filled with the vapor of water, the patient being made to breathe also from a pitcher containing Slacking Lime, strongly impregnated with Carbolic Acid; internally, Tr. of Iron and Chlo. of Potash with Quin. and Sulphite of Soda. With this treatment, in twenty unmistakeable cases, five or six involving the larynx and nares, not one proved fatal. With hot applications and drink and opposite treatment, a neighboring practitioner lost one out of three of his cases; per contra to Dr. Farrow's experience, Dr. J. W. Hunt, of Jersey City, having watched the disease both in its mild and aggravated forms, and under various plans of treatment in his own and others hands, does not believe that he has ever seen a case cured by any treatment and is not satisfied that any treatment adopted has shortened the disease or caused the result to be mo
yet his record of mortality is as fav
has come under his notice.

In Surgical Appliances, Dr. Pier

reports the employment of the Elastic Ligature in the removal of a malignant tumor between the left mammary gland and the clavicle in a lady aged 70. It measured in its longest diameter five inches, in its shorter three; had been 4 years developing, and for 4 months in a state of ulceration with fetid discharge and an occasional profuse hemorrhage. The patient being etherized, a slight cut was made around the base of the tumor to form a groove for the ligature; a needle armed with a strong thread was passed behind the tumor at the centre, by which a double ligature was drawn through; the ends of the elastic cord were then tied on either side, thus strangulating the mass. The ligature gave but little inconvenience, and the general condition of the patient began to improve at once. In nine days the separation was so nearly complete that the remaining tissue was cut with the scissors, not a drop of blood escaping. Cicatrization was complete in a month, and the patient's health is as good as that of most persons of her age. It is now eleven months since the operation.

The Committee solicited replies from the Reporters upon the following subjects: "The value of Topical Applications in Malignant Sore Throat," and "In what degree Calomel is relied upon as a Therapeutic Agent."

In response to the first enquiry we notice the sentiments of the profession as furnished by the reports. Dr. Hasbrouck, of Bergen, regarding the sore throats of Diphtheria and Scarlet Fever as the concomitants of a constitutional condition, has abandoned the severer applications by means of sponges, probangs and the solid Nit. of Silver, and now relies upon remedies directed to the constitutional affections. He recog-

nizes, however, the value of the direct local action of Chlorine in its combinations with Chlorate of Potash and Tr. of Iron, and the disinfecting power of Carbolic Acid and other remedies of its class. Dr. Currie, of the same county, in addition to internal remedies, finds Chlorinated or Carbolized Injections into the nostrils to be attended with the happiest effects in Diphtheria. If, thereby, the posterior nares are kept free from the fetid collection which exists, the patient will rest better, from the simple fact that the breathing will be less obstructed and less of the poison will pass into the stomach to be absorbed and distributed throughout the system.

Dr. Brown, of Burlington County, says that topical remedies are very useful, but not to be exclusively relied upon.

Dr. Stokes says, "I have learned to rely upon topical remedies as *valuable aids* in the treatment of sore throats."

Dr. Thornton has very little faith in such appliances.

Dr. Townsend relies entirely upon local and topical remedies in all forms of ulcerated sore throat, together with cold externally applied.

The physicians of Bordentown find topical applications of value in malignant sore throats, and almost indispensable as disinfectants, as promoting cleanliness of the parts, and as preventive of injury to adjacent parts by the morbid discharge.

Dr. Elwell considers them of undoubted value if [illegible] a mild, soothing and gently astringent nature [illegible] means keep in check the disease and gain time [illegible] effect of constitutional remedies.

Dr. Price hardly dares to treat a case of [illegible] without local applications. He formerly used [illegible]

solutions of N. of Silver, and is not now convinced that he has found anything better. He now uses the solution somewhat weaker; also Tr. of Iron combined with honey or syrup.

The Reporter for Cumberland regards them as important, yet subordinate; when violently applied they only do harm. A proper choice from the long array of appliances are serviceable.

In Essex County, Dr. Pierson inclines to the opinion that such remedies are of value as cleansing agents only. Hot water and hot vapor are of the most value.

Dr. Holden is convinced that any malignant disease of the air passages, not directly the result of local inoculation, is to be reached by constitutional remedies, and that local treatment is but the adjuvant to remove effete and offending matter.

Dr. Love condemns all attempts to remove the infectious element from the mucous membrane by severe measures, such as caustics, &c., and believes that the use of antiseptics and disinfecting solutions by the syringe or atomizer may be useful in destroying infection and preventing general poisoning.

The Reporter of Gloucester County says the general sentiment upon topical applications is, that if the malignancy displays itself mainly in the throat, they are of undoubted value; if the malignancy is constitutional, they become of secondary importance.

In Hudson County, Dr. Vondy finds most benefit from Chlor. of Potash and Tr. of Iron, and believes that their influence for good, used topically, is considerable.

Dr. Burdett considers them only valuable as adjuncts.

Dr. Mitchell considers caustic and irritating appli-

cations as hurtful; has no faith in steam or ice. He obtains an antiseptic and anodyne effect from the use of a three or five per cent. solution of Carbolic Acid applied every hour.

Dr. Lutkins has no confidence whatever in any local applications.

Dr. Morris uses none other than the Sol. of Chlor. of Potash combined with Tr. of Iron.

Dr. Forman uses internal remedies so frequently as to make application almost continuously to the throat; also Carbolic Acid and Lime Water by gargle or spray, and considers them of value when the membrane is in a nascent condition, and of no use whatever in bad cases.

Without prolonging the extracts from the reports, those already given are sufficient for our conclusion that topical appliances in malignant sore throat, which, in nearly all the observations recorded, means *Diphtheria*, are—

1st. Not curative, except it may be in the formative stage of the disease.

2d. They cannot with propriety be wholly ignored. They become valuable aids to successful treatment, as disinfecting, soothing and cleansing agents.

3d. The irritating and more heroic applications of a few years since, are generally abandoned as hurtful.

4th. The main reliance for cure must be placed upon remedies addressed to the morbid constitutional condition.

The second subject of enquiry suggested by the Committee is the therapeutic value of Calomel, to what degree it is at present relied upon as a remedial agent.

When the writer of this report was a medical stu-

dent, one of the recognized standard works on the practice of medicine, though at that time beginning to be superseded by later works, was Armstrong's Lectures. His remarks upon agents in treatment was, that the Lancet was the right arm of medicine and Calomel the left, and the general practice of physicians seemed to be an admission of its truth. But *tempora mutanter et nos mutamur in illis.* Calomel became an unpopular remedy, and has been largely superseded by others. Its power as a drug is universally recognized, and its abuse, in the days of its popularity, equally so. It seemed to the Committee that it would be profitable to know its present status in the armamentaria of the profession. Hence our enquiry.

In Bergen County the reporter says that for many years he has ceased to rely upon the drug in inflammations, acute or chronic, and has ceased to use it only in exceptional cases. In one disease he always uses it, that is Iritis—nothing can supply its place, whether the inflammation be acute or chronic, of syphilitic origin or not. Its effects are so uniformly prompt and certain that he would as soon think of treating intermittents without barks as Iritis without Calomel. This is the only disease in which he *relies* upon the drug as a therapeutic agent. He uses it, however, in cholera infantum in combination with Bismuth and other agents. As a *purgative*, he most frequently uses it, and as such, in some cases, particularly in children, its effects are truly admirable. A good Calomel purge will at once and permanently relieve those cases occurring in children with fever, torpid bowels, a foul and slimy tongue, loss of appetite and offensive breath.

In Burlington County, Dr. Clark quotes the language of Dr. Headland :—"It is the prince of that class of

remedies, unfortunately too few, that we are capable of entering the system, of grappling with disease of the blood and coming off victorious in the struggle." He is accustomed to use it in all those morbid conditions requiring an efficient hepatic stimulant; in verminous affections of children, and in cholera infantum, in combination with other agents, it allays obstinate vomiting when nothing else is effectual.

Dr. Paterson relies upon the drug to control cynanche trachealis.

The physicians of Bordentown use it in inflammations of the serous membranes, to prevent the formation of lymph, and to promote absorption when it is formed. In inflammations of the mucous membrane, when adventitious membranes are, or are likely to be formed; in most cases of dropsy; in primary syphilis, and in abnormal secretions of the liver. .

Dr. Elwell relies upon it in pneumonia, catarrhal fever, pleurisy, some diseases of the eye, syphilis, the acute stage of gonorrhœa, and in some diseases of the brain, spinal cord and their investing membranes.

Dr. Townsend uses it in all cases of portal congestion or irregularity of the liver, generally combined with blue mass and podophyllin or aloes; seldom uncombined, and does not rely upon it any further than its action upon the liver.

Dr. Thornton relies upon it in some infantile cases as a febrifuge; in oft repeated and minute doses in acute gastritis; in erysipelas; in dropsies, to increase the power of diuretics; in some functional affections of the liver; sometimes in inflammations of the serous tissues, and very often in the beginning of some diseases combined with purgatives.

Dr. Brown believes it to be a valuable remedy in

combination, in some brain diseases and affections of the liver when an active purge is required, and in heart affections consequent upon rheumatism.

The reporter from Cumberland remarks that we cannot practice without Calomel in the hepatic disorders accompanying our summer and autumnal diseases.

In Essex County, Dr. Pierson says "there are no morbid conditions in which I rely upon Calomel as a therapeutic agent."

Dr. Holden has not had occasion to use it or prescribe it but twice in ten years. He believes its value to be unquestioned, but that it is easy to succeed with other and less unpopular remedies.

Dr. Love relies upon it in iritis and inflammations of the deeper parts of the eye; in syphilis, primary, secondary and congenital; in infantile diarrhœa, cholera and indigestion; to increase biltary secretions; to allay some forms of vomiting; in some skin diseases; and, finally, whenever he wishes to alter nutrition by affecting the blood-making organs.

Dr. Kipp uses it as a topical application in phlyctenular conjunctivitis; in all forms of syphilitic eye affections, though he prefers inunctions. He places more reliance upon the mercurials in syphilitic eye diseases than upon any other remedy.

In Gloucester County, every extreme of opinion is held upon the general and special utility of mercury. One extreme is illustrated by the use of the terms—"It is the Alpha and Omega;" "It is my Right Bower," &c.

[illegible] extre[illegible] held by the reporter, who [illegible] the [illegible] tion of mercury is a de- [illegible] dangerous medicine in

the hands of ignorance. He has furnished a valuable paper upon this subject, which is appended to this report.

In Hudson County, Dr. Lutkins believes it to be a medicine of great value in all acute serous inflammations.

Dr. Vondy considers it of great value in membranous croup. He also uses it as a purgative in certain cases.

Dr. Morris uses it as a cathartic, and in bronchial catarrh, combined with ipecac and chalk; in children under 4 years of age, attended with much vascular congestion.

Dr. Hunt employs it as a cathartic, and believes it to be one of the best remedies known to the profession.

Dr. Craig uses it in serous inflammations, and in a full dose as a commencing step in the treatment of many complaints when the tongue is furred, with lassitude, headache, loss of appetite, nausea, &c.

In Morris County, about one-third of the physicians use the drug as a cathartic. The only condition in which any rely upon it is in certain stages of syphilis, engorgement and torpidity of the liver, and topically, in abrasions of the cornea. A large proportion of the physicians of the County seldom use it for any purpose, and a few never administer it.

In Passaic County, Dr. Rogers places a high valu[illegible] upon its use in the second stage of croup, and in som[illegible] cases of pneumonia. He would hardly undertake t[illegible] treat any decided case of croup if he we[illegible] debarred from the use of this potent remedy. In [illegible]onia his judgment is, that it forms a very ess[illegible] of the necessary treatment, and the most di[illegible] all the more modern remedies in many c[illegible] supply its place.

In Warren County, the reporter says Calomel seems very necessary in croup; in acute vomiting or in gastric spasm, and in the acute stages of dysentery.

A valuable paper on mercury is submitted with this report by Dr. Currie, of Bergen County, on the action of mercury, possessing much originality and scientific value. Some of its conclusions are as follows:—That it should be used only so far as to stimulate the nutritious changes of the tissues and the character of the constituents of the blood, and that it should be used as a whip and spur only, that is, occasionally and at intervals, and not continuously. Again: that there is no question as to its power over the products of inflammation, in starting the process of resolution and absorption, when these have been arrested; and, further, that no number of cases improperly treated with mercury, no number of constitutions shattered by its abuses, no number of instances where cases have been cured without it, can in any way invalidate the results of its effects when it has cured, where other remedies have failed, or lessen, in any measure, the position which he defends, of a judicious use of the medicine.

The sentiments now quoted warrant, as the Committee believe, the inference—

1st. That the very general opinion of our medical men is, that Calomel is a valuable therapeutic agent.

2d. That in many morbid conditions it is relied upon as the best.

3d. That as a cathartic in certain cases, as an alterative in others, and as an anti-fibrinator, it is almost indispensable.

And the lesson which the discussion of the whole subject furnishes is, that a valuable drug should not be abandoned, and "its name cast out as evil" because it is unpopular.

The length of our report forbids a notice of the many cases of interest which are in the hands of the Committee and which are submitted for publication.

We note the names of fourteen physicians who, since our last meeting, have been called away by death :

Dr. Orson Barnes, of Paterson, died in July, 1875.

Dr. John Grimes, of Boonton, died September 12th, 1875, aged 73 years.

Dr. John G. Schanck, of Princeton, died September 27th, 1875, aged 25 years.

Dr. Chas. F. Clark, of Camden, died October 16th, 1875, aged 75 years.

Dr. Chas. Dunham, of New Brunswick, died December 19th, 1875, aged 45 years.

Dr. Benj. H. Stratton, one of the Fellows of the Society, who was at our last annual meeting, and who was always present at our annual gatherings, died December 29th, 1875, aged 71 years.

Dr. Z. W. Scrivens died at Long Branch, February 11th, 1876, aged 49 years.

Dr. Thos. Page died at Tuckerton, February 18th, 1876, aged 77 years.

Dr. James Vanderpool, of Newark, died in Japan, January 14th, 1876.

Dr. E. W. Maines, of Sussex County, died March 14th, 1876, aged 45 years.

Dr. Addison W. Woodhull, of Newark, died May 14th, 1876, aged 45 years.

Dr. Jacob Fisler, of Gloucester Cou

Dr. Jno. Leavitt, of Baptistown, N

died April 4th, 1876.

Dr. Chas. S. Champion, of

16th, 1876, aged 34 years.

Obituaries of the most of these are in the hands of the Committee, as also of Dr. Cornelison and Dr. Jobs, who died; the former in Jersey City, and the latter in Springfield, a few days before our last meeting.

STEPHEN WICKES,
SAMUEL C. THORNTON,
THOMAS RYERSON,
Committee.

APPENDIX

TO

REPORT OF STANDING COMMITTEE.

In Memoriam.

CHARLES S. CHAMPION, M. D.,

Born Dec. [illegible], [illegible]. Died Mar. [illegible], [illegible].

ADDISON W. WOODHULL, M. D.

Died Mar. [illegible], [illegible]. Aged [illegible] years.

ZEBULON W. SCRIVENS, M. D.,

Born Sept. [illegible], [illegible]. Died Feb. [illegible], [illegible].

CHARLES MILTON LEE, M. D.,

Born Dec. [illegible], [illegible]. Died June [illegible], [illegible].

NELSON D. W. T. STRYKER, M. D.,

Born Sept. [illegible], [illegible]. Died Oct. [illegible], [illegible].

JOHN LEAVITT, M. D.,

Died [illegible], [illegible], [illegible] years.

GEO. R. ROBBINS, M. D.,

Born Sept. [illegible], [illegible]. Died Feb. [illegible], [illegible].

In Memoriam.

CHARLES DUNHAM, M. D.,

Born Feb. 7, 1830. Died Dec. 9, 1875.

THOMAS PAGE, M. D.,

Born June 8, 1798. Died Feb. 18, 1876.

ORSON BARNES, M. D.,

Born A. D., 1830. Died July 23, 1875.

SAM'L CAREY THORNTON, M. D.,

Born A. D., 1791. Died Mar. 19, 1858.

DR. JOHN GRIMES,

Born A. D., 1802. Died Sept. 12, 1875.

JAMES VANDERPOOL, M. D.,

Born Nov. 4, 1841. Died January 14, 1876.

BENJ. HARRIS STRATTON, M. D.,

Born Feb. 6, 1804. Died Dec. 31, 1875.

OBITUARIES.

CHARLES S. CHAMPION, M. D.

BY WM. H. IZZARD, M. D.

CHARLES S. CHAMPION, M. D., the son of William C. Champion, was born December 17, 1842, near Haddonfield, New Jersey; received his medical education at the University of Pennsylvania; graduated March, 1865; served as surgeon in the army until the close of the war; settled in Woodstown, N. J.; there married Miss Rachel C. Jones, daughter of Thomas Jones; afterward moved to Daretown, N. J. Eight months since (owing to the breaking down of his health) gave up practice, and removed to his father's house, Vincentown, N. J., where he died on the 16th of May, 1876.

He was highly respected as a man and a physician, and died in the firm belief of salvation through the atonement of Jesus Christ.

ADDISON W. WOODHULL, M. D.

FROM "NEWARK DAILY ADVERTISER."

DR. WOODHULL was a native of Monmouth County, son of Dr. John Woodhull, and brother of Judge Woodhull. He was born in 1831, graduated at Princeton in 1854, studied medicine, was Penitentiary Physician on Blackwell's Island in 1856, and came to Newark in 1857. In 1861 he left a young wife and a fine practice and became Assistant Surgeon of the Ninth New Jersey Regiment, and afterward became Surgeon and Chief of Hospital at Beaufort, N. C., during Burnside's campaign, and subsequently with Rosecrans, and afterward with Sherman during the latter part of his grand march to the sea. Since his return he has held various positions of honor and trust, having been physician of the County Jail for several years, President of the New-

ark Medical Association, of the Essex County Medical Society, one of the first physicians of St. Michael's Hospital, a member of the Board of Examiners for pensions, and, at the time of his death, a medical examiner for the Mutual Benefit Life Insurance Company. He was a prominent member and ruling elder of the South Park Presbyterian Church, and a teacher in the Sunday School, which has appointed a joint committee, consisting of F. Wolcott Jackson, David C. Dodd, Jr., and E. L. Hamilton, on the part of the Parish School, and Archibald Parkhurst, Thomas Darlington and John Y. Foster, on the part of the Mission School, to prepare some suitable memorial of the deceased. The teachers of the two schools attended the funeral in a body. In social as well as professional life he had the confidence and esteem of every one. Of high literary attainments, he was a lover of the arts, and was very skillful in his profession. In his religious life he was known by his daily walk and conversation, and was faithful to every trust. The community at large will sympathize with the bereaved family and lament the loss also as a serious one to the church, the profession and society. He leaves a wife and four children.

EUGENE JOBS, M. D.

BY E. T. WHITTINGHAM, M. D.

EUGENE JOBS was born February 23d, 1821, at Liberty Corner, Somerset County, New Jersey; was the son of the late Nicholas C. and Margaret C. Jobs. He began life, after a common country school education, by teaching for a time, and also served as an assistant to his father in his store at Liberty Corner.

He studied medicine with Dr. Smith English, at Manalapan, Monmouth County, graduated from the medical department of the University of Pennsylvania, April 4th, 1844, and was licensed to practice in this State, at Elizabeth, by the Board of Censors of the Medical Society of New Jersey, for the Eastern District, September 11th, 1844. A copy of this license was filed with Dumont Frelinghuysen, Somerset County Clerk, October 11th, 1844, and with John P. Jackson, Essex County Clerk, July 14th, 1846. Dr. Jobs began the pursuit of his profession in Springfield, Union County, in the spring of 1845, where he continued uninterruptedly until the period of his death. He married October 28th, 1846, Mary L., oldest daughter of Thomas C. Allen,

of Connecticut Farms, Union County. She died September 12th, 1863, leaving two sons and two daughters. He joined the Presbyterian Church in Springfield, in the year 1848, and remained thenceforth a consistent member. His life was suddenly brought to a close by an attack of apoplexy, May 22d, 1875, in the fifty-fifth year of his age. He was buried in Evergreen Cemetery, Elizabeth.

Patient, industrious, ambitious, his incessant toil, his great exposure, his many hardships at last terminated by the utter ruin of an overtaxed brain. Such was the life and such the end of one who practiced the art of medicine for the space of a whole generation, and whose life might be taken as a model of the humble follower of the Good Physician, for surely he was continually "going about doing good." His practice was large, though not a very remunerative one, extending through several townships. His poor patients received his attention, as well as his wealthy ones.

At his funeral, the large number of sincere mourners from the country round, spoke volumes for his worth and the public loss. In all the relations of life, as father, son, brother, husband, physician, friend, his character was the same. The thorough performance of all his duties, without ostentation and without complaint; his long experience had justly built him up a local reputation as a skillful physician, ready for any and all the contingencies a country doctor is called on to meet—rendered *local* only by his own unassuming modesty and retiring disposition. It will be many years before his memory will wane in his neighborhood, or grow dim among his friends and brethren—and fragrant and good it is.

ZEBULON W. SCRIVENS, M. D.

BY S. H. HUNT, M. D.

Dr. Zebulon W. Scrivens was born in Petersburg, N. Y., September 1st, 1826, and died February 11th, 1876, at Long Branch, N. J., from pneumonia, complicated with other diseases. His busy life did not permit him to identify himself with our District Medical Society, though he expressed his desire and willingness to do so at the first opportunity. Being more than an ordinary man, and occupying a large place in the hearts of his professional brethren, as well as in the community where he lived, labored and died, I have

thought well to pay this tribute to his memory, for the love I bore him.

From his early childhood he was a hard student and a literary aspirant, possessing a retentive mind that never grew weary in its pursuit after knowledge. In 1849 he graduated with honor from the Literary University at Madison, N. Y. He afterward read medicine with Dr. A. H. Hull, of Berlin, and graduated at the Albany Medical College in 1852. He practiced his profession one year at Petersburg, one year at Eagle Mills, N. Y., when in 1854 he succeeded Dr. Jacob Vanderveer, at Long Branch, in a laborious and increasing practice, extending over a section of country four miles wide and sixteen miles long. But his reputation was not thus limited, called, as he often was, miles away to hold consultations with neighboring physicians in critical cases. He was a man of large perceptions and excellent judgment; devoted to his profession, sacrificing everything else to its pursuit, even his life. He was a large, stalwart man, possessing great bodily vigor and vitality, but even that could not withstand his untiring devotion. He excelled in surgery, and was remarkable successful in his operations—as well as a careful and watchful practitioner. He was not only respected but beloved by all who knew him. Artless as a child, sympathetic as a woman, charitable as a philanthropist, it could not be otherwise but that he would be loved. We have never lost from the medical ranks here one who excelled his intellectual acumen, sound judgment and medical skill; and this, I believe, is the testimony of all who knew him, both in and out of the profession. Zebulon W. Scrivens is dead, but his memory, like a golden sunset, will linger long.

CHARLES MILTON LEE, M. D.

BY JOHN BLANE, M. D.

CHARLES MILTON LEE died at his residence, in Ringoes, Hunterdon County, 11th June, 1875, in the 33d year of his age, being born 9th December, 1842. He was the son of Francis R. Lee, of Baptistown, Hunterdon County, and grandson of William Lee, who was for many years a very efficient teacher of schools in that part of the country. He commenced the study of the profession in the office of Dr. John Leavitt, of Baptistown, Hunterdon County, N. J., in 1861, and in

1868 moved to Ringoes and entered the office of Dr. C. W. Larison. He attended medical lectures at Geneva, N. Y., and Bellevue Medical College, and graduated at Geneva.

He commenced practice as the successor of Dr. Henry B. Nightingale, Rosemont, Hunterdon County, where he was much respected and had a good practice, but becoming infatuated by the extravagant reports then current, of the opportunity for success in the South, he purchased a tract of land near Princess Ann, in Somerset County, Maryland, to which he removed. The adventure proved unsuccessful, and in the spring of 1870 he returned to his native place and taught school until March, 1873, when he entered into partnership with Dr. C. W. Larison, his former preceptor, where he continued doing a large business until within a short time of his death, which was caused by over-exertion in his practice. He was much lamented by his patients and all who knew him. He married Miss Carrie Waldron, of Kingston, Ulster County, N. Y., 27th October, 1874; from this union has issued a son, bearing his father's name, born since his death, 11th August, 1875.

Dr. Lee was an active, energetic and consistent member of the Baptist church, untiring in his efforts and zeal for its success. He was a member of good standing in the District Medical Society of Hunterdon County.

NELSON D. W. T. STRYKER, M. D.

BY JOHN BLANE, M. D.

Nelson D. W. T. Stryker died at his residenee, Monmouth Junction, Middlesex County, 20th October, 1875, in the 74th year of his age, being born 11th September, 1802. He was the son of John Stryker, Jun., and grandson of John Stryker, Sen., of Revolutionary memory, who brought him up, as both his parents died when he was quite young.

His grandparents both died rather before he was fully grown up, when he spent some time in a printing office, but not liking it, he engaged in the mercantile business, and for some time in partnership with his only brother John, kept store at Six Mile Run.

He then commenced the study of medicine with Dr. Ferdinand S. Schenck, of Six Mile Run, attended medical lectures in Rutgers Med-

ical College, in New York, and graduated there. Located at what was then called Long Bridge, now Monmouth Junction, and commenced the practice of the profession, where he resided until his death, attending until within a few years to an extensive practice, beloved by his patients, and respected by all who knew him; a conscientious and careful practitioner, until his health failing, he was unfitted by partial local paralysis ending in anasarca and death. His end was peaceful.

He was a consistent Christian, a member of the Reformed church. He married Miss —— Williamson, daughter of Mr. George Williamson, of Three Mile Run, who dying, he married Miss —— Pumyea, cousin to his first wife, and daughter of Mr. John Pumyea, of Three Mile Run; she did not live long, and neither of them left any living children. He then married Miss —— Stout, daughter of Mr. John Stout, of that vicinity, who survives him, as does a son, Nelson D. W. T. Stryker.

JOHN LEAVITT, M. D.

BY JOHN BLANE, M. D.

JOHN LEAVITT died at his residence, in Baptistown, 4th April, 1876, in the 57th year of his age. He was a native of New Hampshire, came to New Hampton and taught school there, and read with Dr. R. M. McLonahan, of that place; after graduating in New York, he practiced in Asbury, Warren County, from 1846 to 1847, after which he removed to Ohio, where he practiced a short time, when he returned to New Jersey and located in Finesville, Warren County, where he remained until 1854; removing from thence to Baptistown, Hunterdon County, where he remained until his decease, doing a large amount of business. He married Miss —— Smith, daughter of Mr. James Smith, who with two children, a daughter and a son, survive him. He was, since living in Hunterdon County, a member of the District Medical Society for that County. In 1860 he was President of that Society, and likewise one of the Board of Censors for the same. He was conservative in practice, very careful and bordering on the expectant plan of treatment; unobtrusive in his manners, beloved and revered by his patients, and the community in which he lived; esteemed and respected by his professional brethren, and the most so by those who were best acquainted with him. He was a consistent member of the Presbyterian Church.

GEORGE R. ROBBINS, M. D.

BY J. L. BODINE, M. D.

Dr. George R. Robbins was born in Monmouth County, September 24th, 1808. He studied medicine under the direction of Dr. John McKelway, of Trenton, and graduated from the Jefferson Medical College, in Philadelphia. He practiced his profession in the village of Fallsington, Bucks County, Pa., for one year, and removed to Hamilton Square in the spring of 1837. There he lived and practiced medicine for nearly thirty-eight years. He died February 22d, 1875. Upon the organization of the Mercer County District Medical Society, in 1848, Dr. Robbins was elected Treasurer of the Society. Dr. Robbins had a large and widely extended practice, and by his kindness and attention he secured the confidence and affection of his patients. He was elected to the House of Representatives of the Congress of the United States, in 1854, from the Second District of New Jersey, and re-elected in 1858. Dr. Robbins was an esteemed physician and a useful citizen.

JOHN MESIER CORNELISON, M. D.

John Mesier Cornelison, M. D., was born April 29, 1802, in the old town of Bergen, in the present locality of the public square. Rev. John Cornelison, his father, was pastor of the old Dutch Reformed Church in Bergen for thirty-five years. Young John's early education was obtained in the old Columbia Academy, the first of its kind erected in Bergen County, if not in the State, and was so named in honor of Columbia College, New York, and intended as a preparatory school for the institution across the Hudson.

He graduated at Union College, in 1822; in the same year entered the office of Dr. V. Mott, and received his degree of M. D. in 1825, at the College of Physicians and Surgeons. He entered upon practice in the same year at Bergen. His circuit of practice was large; from Bergen Point to Bull's Ferry, including Hoboken and Paulus Hook, he went each day, there being but two fellow-laborers besides himself in all that distance. Three horses were used, and were most generally tired out ere the day's work was over. From 1825 to 1840, he thus continued, when he moved to Jersey City proper, and practiced here

down to 1862, when he ceased active medical practice. In 1832 he was elected to the State Legislature.

In 1851 Governor Fort appointed him one of the six Lay Judges of the Court of Errors, to fill the four years unexpired term of Hon. Garret Wall. This position was held sixteen years, the two terms, six years each, and the four years unexpired term of his predecessor. Among the many cases before the court, sitting three times each year, we notice only one—the Harmon-Thom case, involving seven millions of dollars, contested by the O'Connors and Woods of New York, and the Vrooms, Draytons and Williamsons of New Jersey. Mr. Thom finally gained his case, against the vote and opinion of Dr. Cornelison. A Democratic Governor had appointed the Doctor, and when his first term expired, a Whig Governor (Olden) re-appointed him, with the remark, "He has done well, and there is no necessity to change him."

In 1861 the North was startled with the outbreak of the late Rebellion, when Dr. Cornelison felt it was his imperative duty, with other gentlemen of the Democratic party, to aid the Government in its suppression. He at once took his stand, and made a stirring address in support of the war measures of the general Government, in Masonic Hall, to a crowded audience. And all through the war, Abraham Lincoln had no stauncher supporter than Dr. Cornelison; no one who, by every means in his power, strove to uphold the honor and integrity of the nation. Since then he has remained in the Republican party, though often differing with some of his friends on certain measures.

In 1869 the Doctor retired from the bench of Judges, and was elected Mayor of the city of Bergen. This position he refused when one of the Judges, but now, free from that impediment, he accepted the nomination, and was triumphantly elected. Dr. Cornelison's father preached Robert Fulton's funeral oration in old Paulus Hook.

In 1873 he was appointed Chancellor by the Legislature, a member of the Board of Works, and made its chairman by the Board.

In 1874, by unanimous request and nomination, he stood as a candidate of the Republican party for Mayor of the city. He quietly said, "I don't want the office, but if the party and people want me, they alone must elect me, for I shall remain inactive in the matter." He was defeated by the present incumbent of the office of Mayor, Hon. Henry Traphagen.

Dr. Cornelison was at the time of his death President of the Board of Regents of the Hudson County Hospital.

In 1867 he united with St. Paul's Episcopal Church, of which he was a consistent member.

In his seventy-fourth year, living in a fine mansion on the hill (Bergen), with all the comforts of life, a good library, the respect of troops of friends, no revenges to cherish, and with charity for all, Dr. Cornelison had reached a healthy old age, and the close of his life was calm and peaceful. He died May 24, 1875.

CHARLES DUNHAM, M. D.

BY JOHN BLANE, M. D.

CHARLES DUNHAM died in New Brunswick, N. J., 9th December, 1875, in the 46th year of his age, being born in the same place, 7th February, 1830. He belonged to and was descended from rather a literary family. He was the son of Charles Dunham, who was a lawyer by profession, and grandson of Jacob Dunham, M. D., who practiced his profession thirty years or more in New Brunswick; great grandson of Azariah Dunham, of Revolutionary fame, who was also a resident of New Brunswick; and he (Azariah) son of Reverend Jonathan Dunham, and grandson of Reverend Samuel Dunham, of the Piscataway (Stelton) church. His mother, the wife of Charles Dunham, sen., was a native of Savannah, Georgia; her maiden name was Elizabeth Morrell. The Doctor received his preliminary education partly at the grammar school in New Brunswick, but more particularly under the instructions of his father, who was a gentleman of much more than ordinary attainments, and who possessed unusual abilities for imparting knowledge; preparatory to commencing the study of medicine, he spent some time in the drug store of C. D. Deshler, for the purpose of getting a practical knowledge of compounding medicines, and preparing prescriptions, and during the latter part of that period commenced the study of medicine under the instructions of A. D. Newell, M. D., and completed his studies in the office of ex-governor Wm. A. Newell, at Allentown, N. J., and was graduated Doctor of Medicine by the University of Pennsylvania in 1850.

He commenced the practice of his profession in Bordentown, N. J., remaining there but a little more than a year, when at the earnest solicitation of his father he returned to his native city, where he

remained until his death. He married, 8th October, 1861, Miss Elizabeth Hunt, daughter of Lewis Hunt, Esq., of New Brunswick, who survives him, and also leaves a daughter of about ten years of age.

Being of a naturally retiring disposition, he would never permit his name to be used in connection with any political office; consenting in only one instance, to serve as one of the board of trustees of the public schools, which position he held acceptably for several years.

THOMAS PAGE, M. D.

BY R. H. PAGE, M. D.

Dr. Thomas Page, son of Dr. William Page, was born at Cross Roads, Burlington County, New Jersey, June 8th, 1798.

After having received a liberal education, he studied Medicine with Dr. Joseph Parrish, of Philadelphia, and graduated at the University of Pennsylvania, in the spring of 1821.

Soon after graduating, he entered into partnership with his father, in a large and extended practice over a populous district of country, that taxed the powers of endurance of both father and son to the utmost. The partnership continued about twelve years, when it was dissolved, owing to the failing health of the son, who removed to Tuckerton in the same county, and engaged in mercantile pursuits in connection with the limited practice of his profession. He continued the practice several years, but finally abandoned its active duties and only followed it as consulting physician for that section of country.

A few years before the rebellion, he had successfully engaged in the milling and lumber business in Virginia. After the commencement of the war he passed through many vicissitudes and dangers, but finally succeeded in disposing of his moveable property for a mere pittance, and entirely abandoning his real estate, he started for his home in New Jersey, thus losing the accumulations of years at one fell stroke. He was unexpectedly detained several weeks at Norfolk, as parol prisoner, during which time his family heard nothing from him; at last, through the influence of some southern gentlemen who had formed for him a warm friendship while in their midst, by reason of his upright business habits and gentlemanly, genial manners, he was

granted a permit to pass the lines, and soon gladdened his family and friends by his return to his home.

He afterward engaged in the drug business at Tuckerton, which he continued until his death. He died February 18th, 1876, aged 77 years.

It is not meet that I should be his eulogist, yet thus much I may be allowed to say. He ever maintained a high character for integrity as a business man, and was esteemed a safe counsellor and adviser by his neighbours. He served one term in the State Legislature, at a time when the mental and moral standard of that body was much higher than it now is. He was a courteous, genial gentleman, and retained a youthfulness of feeling that ever caused him to sympathize with, and join in the innocent pleasures of the young and joyous. He was universally respected and esteemed as citizen, neighbor and friend, as was most feelingly evinced by the large concourse of friends and neighbors that paid a heartfelt tribute of respect at his grave.

He was twice married, and leaves two sons by his first, and two daughters by his last marriage. By his family he was loved and revered, not only on account of filial ties, but equally for his domestic virtues, which are the great adornment of the true Christian gentleman.

He was a successful physician, being a careful diagnostician and prompt and energetic in the treatment of disease. Commencing practice when patients had to be drenched with hot villainous teas, and cooling drinks and ice were religiously taboed, he soon saw the error of such treatment, and against the prejudices of patients, nurses and doctors, dared to act up to the convictions of his judgment, and soon had the satisfaction of reaping a rich harvest of reward; not only in the relief of disease, but in the growing confidence and attachment of the community that he faithfully served, which he ever retained, not only by his skill and courage as a physician, but by his gentle and sympathetic manners, making common cause with his patients and their friends in their afflictions.

Although he never allied himself with the District and State Medical Societies, owing to his early abandonment of the active duties of the profession, he ever retained an earnest love for the profession of his choice, and, by reading, kept even pace with its advancement.

ORSON BARNES, M. D.

BY J. R. LEAL, M. D.

ORSON BARNES was born in 1830, in Baldwinsville, Onondaga County, N. Y., where he received his early education under Prof. Stilwell, who kept a private school for boys; afterwards completing a course of study at the Syracuse Academy.

He commenced the study of medicine in 1848, with Dr. J. V. Kendall, and afterwards was the pupil of Dr. D. T. Jones, a physician of celebrity in western New York. He attended three full courses of lectures, and graduated at the Albany Medical College in the year 1854. After graduating he made an extensive tour through the Western States, but finally returned and settled at Succa Falls, in his native State. After about two years, he was induced to remove to Athens, Penn., where he built up a large practice.

In September, 1861, he married the daughter of Mr. Charles Danforth, of Paterson, N. J., and about two years later, after the death of Mrs. Barnes' brother, Capt. Charles Danforth, removed to Paterson, where he soon became engaged in active practice, which, before his death, became large and lucrative.

He was thoroughly devoted to his profession and to the interests of his patients. His characteristics as a practitioner were rapid analysis, ready judgment and prompt and decided action. Courageous and hopeful himself, his firm tread and self-reliant air inspired hope, when despair was rapidly settling down upon the mind of his patient, while his ready sympathy incited the warmest attachments between himself and his patients. He was a man of fine natural abilities, of commanding presence, pleasing address, a good conversationalist, and at home in any society. He was frank and generous with his friends, and devotedly attached to his relatives.

Dr. Barnes was by nature a politician. While never seeking political preferment, he was deeply interested in every contest, national state and municipal, and had he devoted himself to this profession, possessed all the traits necessary to have made him famous as a leader.

His last illness was tedious and severe, and attended with extreme suffering, which he bore with remarkable fortitude. Early in December, 1874, he was prostrated by an attack of pneumonia, from which he made a good recovery, but too early exposed in the practice of his profession, brought on a severe attack of acute rheumatism, which

resulted in disease of the heart and general dropsy, which terminated his life, July 23d, 1875.

The esteem in which he was held by the community, was evinced by the beautiful floral offerings, and the large concourse of citizens assembled to pay the last tribute of respect and affection to his remains.

The following is from the records of Passaic County Medical Society:

At a special meeting of Passaic County Medical Society, held on July 24th, 1875, at the residence of Dr. Leal, to express the sentiments of the Society, in regard to the death of Dr. Barnes; O. Warner, M. D., President, James C. Amiraux, M. D., Secretary—

Resolved, That the death of our professional friend and brother, Dr. Orson Barnes, fills our breasts with deep sorrow. His removal from so large a circle of admiring friends and trusting patients in the midst of his years, makes us feel the uncertainty of life and the instability of all earthly prosperity.

We tender to his bereaved family our sincere sympathy, and will, as a Society, in a body accompany them at the last rites of respect and affection to be paid to his remains.

Resolved, That the proceedings of this meeting be published in the city papers, and a copy of the above resolutions be forwarded to his family.

SAMUEL CARY THORNTON, M. D.

BY SAMUEL C. THORNTON, M. D.

Samuel Cary Thornton, M. D., son of Joseph and Mary Thornton, of Buckingham, Buck's County, Pennsylvania. In this place he was born, A. D. 1791, and lived there until he attained his majority. Was educated at the Doylestown Academy. Studied Medicine under Dr. Wilson, of Buckingham. Graduated in 1816, at the University of Pennsylvania. Directly afterwards moved to Moorestown, Burlington County, New Jersey, and there practiced medicine until he died, March 19, A. D. 1858.

DR. JNO. GRIMES.

BY JNO. G. RYERSON, M. D.

Dr. John Grimes died at Boonton, September 12th, 1875; he was the son of Jonathan Grimes, and was born at Parsippany, Morris County, in 1802. He received a certificate to practice medicine, from the

State Medical Society, in 1827. First practiced at Newfoundland, N. J., but since 1833 has practiced in Boonton.

He was remarkable for his strong convictions, and the boldness and pertinacity with which he followed them. He early became a fearless and outspoken advocate of the anti-slavery doctrine, and played an important part in the agitation of that perplexing political question. He frequently aided slaves to escape, and his house was what was termed a station on the "Underground Railroad." He was frequently ill-treated and mobbed; and once arrested by the Sheriff of Essex County, for aiding in the escape of fugitive slaves. He gave bonds, but for some reason was never tried. He was President of the first Anti-Slavery Society in the State. In 1844 published the N. Y. Freeman, which continued until 1850, when other journals took up and advocated the question.

He was an early and strong advocate of the Temperance cause; he strongly condemned the use of stimulants, as practiced in the profession twenty years ago. It was a satisfaction to him that he lived to see the profession adopt his views in a great measure, on the question of stimulants; and the country at large uphold his views on the great political question.

Through nearly the whole of his adult life he abstained from animal food. Whatever may be the facts or theories as to the value of animal food, it is clear it did not impair his vigor of mind or body, for he always had a large and laborious practice, and when an old man he performed more professional labor than most young men are able to endure.

His quiet, grave manner, plainness of dress, early and persistent advocacy of temperance and anti-slavery, served to render him unpopular in some respects, for the greater part of his life. But all, whether in or out of the profession, recognized his ability as a practitioner. He performed many important surgical operations, and in both surgery and obstetrics was for a long time considered authority in this part of the country.

During his whole life, in his intercourse with the profession and the world's people, he was a man of honor, truth, and the strictest morality. At the time of his death he was highly esteemed and loved.

JAMES VANDERPOOL, M. D.

BY WM. VANDERPOOL.

JAMES VANDERPOOL was born in New York city, November 4th, 1841, and died in Yokohama, Japan, January 14th, 1876. When he was one year old, his father, Beach Vanderpool, removed with his family to Newark, N. J., his native town.

At the age of 13 years, James was sent to school to Mr. Charles M. Davis, at Bloomfield, N. J., and afterwards entered the Mount Pleasant Military Academy of Mr. Maurice, at Sing Sing, N. Y. In the year 1859 he passed his examination for admission to the Freshman Class of Yale College. He remained at Yale during two years, and in 1861 became a member of the Junior Class of Williams College, Massachusetts, from which he was graduated in the class of 1863.

On quitting college, he began the study of medicine in the office of Dr. Isaac A. Nichols, Newark, N. J., with whom he remained about one year, when he matriculated at the College of Physicians and Surgeons (Columbia College), in the city of New York. He received his degree of M. D. in the year 1866, and, with some fifteen or twenty other young physicians, he became a competitor for the position of House Physician of the old New York Hospital, recently demolished, which stood on Broadway facing Pearl Street. The examination was a very severe and impartial one, but Dr. Vanderpool succeeded in obtaining the prize; and for upwards of two years he acted in the capacity of House Physician of that institution. In the year 1869 he removed to Newark, and commenced the practice of his profession. He was elected a member of the staff of St. Barnabas' Hospital, and soon after resigned that position in order to accept a membership on the medical Staff of St. Michael's Hospital. In the same year he was appointed a Brigade Surgeon, with the rank of Major, on the staff of Brig. General Plume.

In the year 1873 he went to Europe, making the tour of the British Isles, and visiting the Continent.

On the 29th of November, 1873, he sailed from the port of New York in the barkentine *James Condie*, (new), bound for Yokohama, Japan, with the intention of making a voyage around the world for the benefit of his health. No noteworthy incident occurred until 3 o'clock, A. M., of April 1st, 1875, when the barkentine struck a coral reef off the Island of Boeton, near the large island of Celebes, Malay-

sia. The vessel was abandoned by the captain, and all hands took to the boats, and rowed some 15 miles to a small island, which they found to be inhabited by savages. It was with difficulty that the barbarians were persuaded to allow the shipwrecked voyagers to land. They remained for two weeks on this island, sheltered by an old thatched fishing shed standing near the sea shore. On the 14th of April they were rescued by an Italian man of war, a corvette, the *Vettor Pisani*, and were carried to the Dutch island of Amboyna. The commandant of the corvette generously offered Dr. Vanderpool an invitation to accompany him to Yokohama, which was thankfully accepted as far as Hong Kong. On the way thither, the corvette stopped at Ternate, and remained for some time at the large almost unknown island of New Guinea. At Hong Kong, the Doctor took a White Star Steamer to Yokohama, where he arrived on the 10th of July, having lost the greater part of his baggage by the shipwreck. He soon made the acquaintance of Dr. Eldridge, the Physician in Chief of the General Hospital at Yokohama, who kindly offered him the position of Assistant Physician of the Hospital, until he could make his arrangements for the future. He accordingly moved his quarters to the Hospital, and had apartments in the building. On the morning of January 14th, 1876, the Japanese servant went to his room and found him dead in his bed. He was buried in the foreign cemetery, at Yokohama, the Rev. Mr. Miller, of the Church of England, of which Dr. Vanderpool was a member, reading the burial service. His remains will be exhumed, and brought to Newark, N. J., for interment.

BENJAMIN HARRIS STRATTON, M. D.

BY R. H. PAGE, M. D.

Dr. Benjamin Harris Stratton, son of Dr. John L. Stratton and Anna H. (who was a daughter of Dr. James Stratton, of Swedesboro, Gloucester County, New Jersey) was born in Mount Holly, Burlington County, N. J., February 6th, 1804.

His father was born in Fairfield, Cumberland County, N. J., February 23, 1778. He had the advantages of a good school, of which he made the most; and pursued the study of medicine with Dr. James Stratton, the maternal grandfather of the subject of this memoir. After attending the regular courses at the University of Pennsylvania,

he graduated in the year 1800, and shortly after, located in Mount Holly, where he successfully practiced his profession (with the exception of a short period of six months, during which he was in Burlington City, associated with Dr. Nathan W. Cole) until a few years before his death, which occurred on August 17th, 1845.

The son, Benj. H., was prepared for college at Baskenridge, N. J., which then enjoyed a high reputation as a preparatory school; and graduated at Princeton College in September, 1823. Very soon thereafter he commenced the study of medicine with his father, and graduated at the University of Pennsylvania in the spring of 1827. Soon after graduating he entered into partnership with his father as a medical practitioner. They continued together until a few years before the father's death, when the infirmities of age, made premature by his onerous life work, caused the father to withdraw from active practice; and the son, in addition to the labor, hardships and responsibilities of an already large and increasing practice, assumed the duties laid aside by the father; and how well, conscientiously and successfully they were performed, the love, veneration and respect of the community he served so long, most beautifully tells.

He continued his professional labors through all the changes and vicissitudes of a half century up to the commencement of his last illness, and then unwillingly laid them aside, only at the commands of his attending physicians. After several months confinement and suffering, with a complication of diseases, borne with the resignation of a Christian gentleman, he died December 31st, 1875, aged 72 years.

It could be truly said of Dr. Stratton, that he was a high-toned, honorable gentleman, just and upright in all his dealings, possessing a high sense of integrity, from which he never swerved. He was a cheerful, genial companion, warm and true in his friendships, and compassionate and considerate of the feelings of others; elated with their joys and saddened with their sorrows, in a word the golden rule "do unto others as ye would they should do unto you," was his guide, shield and buckler through life. What higher encomium could be given?

In his professional life the same characteristics that distinguished him as a man, honor, honesty and integrity were prominent, with an enthusiastic love of his profession that was shown in his practice, in his daily intercourse with physicians, in the meetings of the Medical Societies, in his observance of the laws of medical etiquette, and at all times and seasons he was its devotee, advocate and defender.

As a physician, through all the years of his practice he held a prominent position among those of the State. He was one of the founders of the Burlington County Medical Society in 1829, was elected President several times, and served as Treasurer for many years. He was almost always present at its stated meetings, and actively participated in the proceedings, and when young physicians were elected as members, he would extend to them a cordial greeting, and in all their after professional intercourse with him, be to them friend, guide and counsellor, as the writer remembers with gratitude.

He was a member and regular attendant of the meetings of the New Jersey State Medical Society, and was elected President in the year 1838. The physicians of the State will remember him as an active co-worker in all their labors, and as a gentlemanly, genial companion, whom they had learned to love and esteem.

As a practitioner, he was successful in the treatment of disease, and not only won the confidence of his patients by his skill, but their hearts by his kindness and sympathy. He was noted for his ready resource in the use and adaptation of 'domestic remedies' as adjuncts in the cure of disease, and as a prescriber of officinal standard remedies in their combinations and adaptability to the disease under treatment, he had few or no superiors. He acquired an enviable reputation as accoucheur, and was very skillful in the use of the forceps. And prompted by his enthusiastic love for the profession of his choice, almost of his inheritance, he through all the long years of his arduous labors, was a constant reader of the current medical literature of the day, and thus kept pace with the material advancement of medical science. Although he kept no record of his cases, yet, having a retentive memory, his mind was stored with a great amount of practical knowledge that he was ever ready to impart for the benefit of others.

He lived the truth of the homily of Bacon: "I hold every man debtor to his profession; from the which, as men do seek to receive countenance and profit, so ought they of duty to endeavor themselves by way of amends to be a help and ornament thereto." Dr. Stratton was married May 11, 1829; his widow and two daughters survive him.

The following preamble and resolutions of the Burlington County Medical Society, inadequately express the sentiments of honor, love and esteem inspired by him among his medical brethren during his

life, and their deep feelings of regret and sorrow at the time of his death:

BURLINGTON COUNTY MEDICAL SOCIETY.—At a special meeting of the Burlington County Medical Society, called for the purpose of attending the funeral of Dr. B. H. Stratton, the following preamble and resolutions were unanimously adopted:

WHEREAS, Dr. Benjamin H. Stratton has been removed by death in the fullness of years and the ripeness of professional honors, we, the members of the Burlington County District Medical Society, recognizing him as one of the founders of the Society in 1829, and its firmest and most efficient supporter, both by word and deed, through evil and good report, feel that by his death the Society has met with an incalculable loss that time will mitigate, but never entirely remedy; and that we, his friends, associates and professional brethren, grieve with a sincere and heartfelt grief for him as a friend, companion, instructor and counsellor, for many of us remember with gratitude, when entering upon our professional career, that not only in the meetings of the Society, but at all times and seasons, he was ever ready to draw from the general storehouse of his professional experience, lessons of wisdom and counsel for our benefit and guidance, and his memory will ever be held in esteem and reverence; and

WHEREAS, Our profession is endeared to us by years of toil, by responsibilities met, by hardships endured, by triumphs achieved, and by associations of professional and social intercourse with each other, it is meet that its members, when one of their number, one of the oldest practitioners in their midst, who, through a long life of professional labor, has to the full, partaken of its responsibilities, hardships and triumphs, and whose cheerful disposition, genial manners and honorable professional intercourse has won our respect and esteem, and who, for the last half century has moved in and out amongst this people, mingling in their joys and partaking of their sorrows, and as the skillful physician with an ever willing mind and ready hand assuaged their afflictions and sufferings, is removed from among us by death, do pay a heartfelt tribute of respect to his memory by mingling our grief with that of his afflicted family and many sorrowing friends; therefore,

Resolved, That we attend his funeral in a body, and wear the usual badge of mourning.

Resolved, That the secretary be authorized to transmit a copy of these resolutions to the family of the deceased, and to the Mount Holly, Newark and Camden papers.

ELIJAH W. MAINS, M.D.

BY DR. C. V. MOORE.

DR. MAINS was born near the village of Stillwater, Sussex County, New Jersey, May 29th, 1832. At an early age he [illegible] a desire for study. All the advantages in this respect

were obtained in the public schools at Stillwater, where, under the able tutorship of John D. Reynolds, he and many other scholars laid the foundation for the different professions He studied medicine with Dr. John J. Linderman, of Dingmans, Pike County, Pennsylvania, and graduated at the Jefferson Medical College of Philadelphia in 1858. The same year he settled in practice at Flatbrookville, Sussex County. The same year he married the daughter of his preceptor, the late Dr. John J. Linderman. With the exception of about five years his whole professional life was spent at Flatbrookville. Ever ready to go upon call, his kindness and assiduity was proverbial. He persevered with the professional harness on. From exposure he contracted cold about the 15th of February last; double pneumonia set in; the attack was severe, and the case well nigh hopeless the first week; but from the lung trouble he appeared to be making a satisfactory recovery, as his lungs seemed entirely relieved. Some gastric weakness and want of nutrition remaining, he did not recover so as to be out, and rather unexpectedly on Saturday, March 11th, some cerebral symptoms manifested themselves, soon followed by convulsions, and he died on Monday, the 13th of March, 1876, in the 44th year of his age, mourned and appreciated, as evinced by the numerous and sorrowing concourse of neighbors and friends that attended his remains to there last resting-place.

REPORTS OF DISTRICT SOCIETIES.

BERGEN COUNTY.

To Chairman of Standing Committee, &c.:

The general health of the county of Bergen has been about as good as the preceding two or three years. As regards the village of Hackensack, and its immediate surroundings, my experience and observation correspond with that of Dr. C. Hasbrouck, who notes "the entire absence of all epidemic influences—or to speak more correctly, perhaps—the entire absence of all manifestations of such influence, in the prevalent diseases of the past year." Indeed, we have had no epidemic of any kind, excepting during the past winter, the remarkable prevalence of catarrhal influenza.

A few cases of pertussis, scarlatina and diphtheria have occurred, but as far as I have been able to learn, have been isolated. There have been less malarial fevers the past year than usual. Intermittents have prevailed to a limited extent, but the more common and serious results of malarial poison have been noticed in the different forms of neuralgia, which yield only to large and repeated doses of quinine. Pneumonia, pleuritis, and the various bowel affections, have been less prevalent than usual.

In regard to malaria, Dr. H. A. Hopper, of Hackensack, says: "I saw and treated a great number of malarial cases of a peculiar character, both pernicious

and masked fevers; some of them coming fairly under the nosological arrangement of typho-malarial. It has no doubt fallen to the lot of many members of the profession, who have enjoyed several years of observation, to have met with some of the same peculiarly obscure forms of disease, in which it seemed impossible to designate any distinct type of fever, because of the absence of distinctly marked pyrexia or apyrexia; running their course without any, or with only slightly developed febrile manifestations; disturbing certain nerve centres, and producing local neuralgia, or in the absence of special neurosis, nothing more than a general malaise. In the months of June and July, I treated more than two dozen such cases, sometimes assuming the quotidian and tertian types, and in three or four of them a quartern form. The disease was more prevalent among children than adults; several cases being complicated with severe convulsions, resulting in infantile paralysis with two of them. Both recovered in about two months, more from the recuperative power of natural growth and development, than by any line of medication employed. No one will, I think, intimate that organic diseases may not be complicated by a supervening attack of malarial fever, but they are so liable to simulation while the system is under malarial influence, that it becomes a matter of profitable study to note the peculiar vagaries of malarial attacks. In some instances the attacks appeared more like local muscular rheumatism; the successful result, however, of quinine treatment being conclusive of their malarial origin. The peculiarity and number of malarial cases which came under my notice during the summer of 1875, suggested very strongly the importance of studying both the general and special,

etiology of the diseases. To discuss it would require more time and space than would be allowed to this report. I have no very deep share, however, in the opinions of that class of thinkers, who always associate malaria with swamps, and other low lands, and find in them the almost exclusive and prime factors in its production. I do not doubt that it may sometimes be epidemic, but feel well assured that it is more commonly endemic, and that its origin is more frequently than will be readily admitted, in and around our dwellings; the products in such cases, to be classed among preventable diseases. I am well convinced that many of the cases to which I have here alluded, were the direct result of the inhalation, during the hours of sleep at night, of an atmosphere poisoned by the mephitic gases evolved from out-door water closets, in close proximity to the open windows of sleeping apartments. The sooner we can, by authority of general and local laws, enforce an observance of sanitary regulations, in regard to many domestic causes of this and kindred poisons, sometimes in water supplies from wells, and at other, from sewer gases, the better will be the health of our population, in country, town and city. In the treatment of the cases named, as I have previously indicated, I relied almost entirely on the use of sulphate of quinine, for the early breaking up of the attack; and believing that prompt treatment is the most reliable method for preventing organic lesions, and thus the pernicious forms of the disease, I frequently prescribe forty grains in twelve hours for adults. Idiosyncrasies may be found, in which, on account of intolerance of the remedy in even small doses, I am compelled to resort to sulphate of cinchonia; a remedy which in my

hands has not proved very satisfactory, except as a prophylactic. In several cases of young children, I have used drachm doses of the fluid extract of eucalyptus globulus, with very good results."

From Coytesville and vicinity, Dr. A. Clendenin reports no epidemics; a few cases of measles and of scarlatina, and two of variola; pneumonia, pleurisy and bronchitis less than usual; parotitis has been quite prevalent. There have been a number of cases of rheumatism and arthritic complications; of malarious fevers a large number of cases almost exclusively tertian intermittent, the remittent type mostly attending upon some distinct organic inflammation, as of the lungs, liver, or kidneys. In the treatment of intermittent Dr. Clendenin says: "I give sulphate of quinine in solution, two grains to the teaspoonful of water, saturated with camphor, which counteracts the cerebral excitements often following the use of quinine. A rule I always observe, is the non-administration of quinine shorter than six hours prior to expected recurrence of paroxysm, or if the cold is not sufficiently distinct, then seven hours ahead of the fever. I have never found it necessary to give more than ten grains during the twenty-four hours, generally not more than five grains. Given, as I said before, in solution, and generally in connection with a small amount of strong hot coffee, which destroys the taste almost entirely, and assists the rapidity of the action of the quinine. After first omission of paroxysm, one dose six to eight hours in advance of hour the next one is due, and after this for alternate times covering three weeks. During this time, I generally use dilute nitro-muriatic acids, and attend to the general health, &c." Dr. Clendenin also reports twenty-three cases of

diphtheria occuring in his practice during the past year.

From Park Ridge and vicinity, Dr. H. C. Neer reports, that the spring and summer months of 1875 presented nothing worthy of particular attention in the general class of diseases, excepting, perhaps, the continued decrease of intermittent fever, which has been much less prevalent than in former years. At the beginning of the past winter, diphtheria and scarlatina made their appearance in different localities, and continued to be more or less prevalent through the winter and early spring. Many of the cases have been severe and complicated. The Doctor reports as having had under his care, about forty of the former, and sixty of the latter—two cases of scarlatina and three of diphtheria terminating fatally. In addition to the usual remedies, the Doctor says: "I think I have derived much benefit from the use of Salicylic Acid, used externally and as a gargle." Pneumonia and bronchitis have not been unusually prevalent or severe the past winter, excepting with small children. The Doctor also calls attention to the frequency and severity of inflammatory throat affections during the months of February and March, exhibiting a very decided malarial element, having regular intermissions. The throat would be very comfortable in the morning, and the patient feeling nearly well; in the afternoon fever would set in, with swelling of the tonsils and fauces, soreness and difficult deglutition, the parts looking red and inflamed. [illegible] cases were very intractable to treat- [illegible] yielded only to large and continued doses

[illegible] Englewood and vicinity, Dr. J. T. DeMund

reports: "The vernal months remarkably healthy; parotitis the only epidemic. From the middle of June till the second week in October, there was no respite to disease incident to this portion of the year. The prevalence of dysentery was noteworthy, approaching an epidemic. Common membranous sore throat has been exceedingly prevalent. Diphtheria has been rife; its fatality in some localities fearful. I was in hopes to report all my cases favorable, but, unfortunately, lost two cases in one family—twins, under four years. Poor nursing and supreme indifference too often appends a stigma to efforts that might otherwise have yielded a golden harvest. The "Chlorine" treatment claims more than a passing notice. Large doses of tinct. ferri. chlor. et potassæ chlor. administered every ten or fifteen minutes, as a rule, acts like magic. The free use of ale or beer, and "pickle pork" externally, should not be despised. Gargles and topical appliances are uncalled for. Quinine, in some cases, may be given with propriety. Pursuing this line of treatment the glands of the neck seldom enlarge perceptibly. Scarlatina has not assumed the form of an epidemic, but it has been quite prevalent during the entire year; one case of the malignant variety fatal in fifty-six hours. Variola, rubeola and varicella have occasionally made their appearance."

I have received no direct information from the other parts of the county, and of course cannot report concerning them. I have reason to believe, however, that diphtheria has prevailed extensively in the lower part of the county, particularly in the village of Carlstadt and vicinity.

I have endeavored to secure answers from the mem-

bers of our "District Society" to the questions propounded by the "Standing Committee of the State Society," but have only received replies from three, viz: Drs. Hasbrouck, Clendenin and Currie.

As to "*the value of topical remedies in malignant sore throat,*" Dr. Hasbrouck says: "It is presumed that the committee refer not to any one specific disease, but to the condition of malignancy which forms so prominent a feature of the sore throats of different diseases. Assuming this to be the fact, and assuming also that the committee desire an answer based entirely upon the experience of members, I would state that when I began to practice medicine in 1839–40, it was the general, if not universal practice, in the anginose and malignant forms of scarlatina, to employ various topical remedies to the throat by means of sponge, probangs, &c., for the purpose of arresting the necrotic process, and to encourage the separation of sloughs and the cicatrization of the resulting ulcers. For this purpose solutions of nitrate of silver or sulphate of copper, the black wash, hydro-chloric acid, &c., besides various emollient and astringent gargles, were daily employed. My own experience in the use of such topical measures, particularly those that required the employment of sponging, probangs, &c., I must confess were never very satisfactory, although in deference to the general opinion and practice of the profession, I continued to employ them. Some eighteen or twenty years later, perhaps, or about sixteen or eighteen years ago, diphtheria first made its appearance in this county. The disease was of a most malignant type, and very fatal, and spread rapidly through the county. It was at that time regarded mostly as a local disease, and the topical application of remedies

was not only generally resorted to, but was regarded as an important if not an essential part of the treatment. The nitrate of silver, either solid or in solution, was the remedy mostly used. As far as my own observation and experience in the use of this means of treatment extended, I must say that I was never able to see the favorable results that were claimed for it; and as the profession became more and more fixed in the opinion that the disease was a constitutional or blood disease, of which the sore throat and membranous exudation were but the local manifestations, I gradually ceased to use the caustic solutions by means of brushes, probangs, &c., and contented myself, so far as local treatment was concerned, with gargles, and the internal use of acidulated drinks. The treatment which I have adopted for several years past, is about as follows: 1st. Strict attention to ventilation, cleanliness, and the free use of disinfectants, such as carbolic acid, &c. 2d. The regular and frequent administration of food, particularly eggs, beef-tea, and milk, with or without alcoholic stimulants, as the case may require. 3d. General tonics, as quinine, in small doses, but more particularly the tinct. fer. sesqui. chlorid. in a solution of the chlorate of potash. 4th. Chlorine water in doses of from ʒi., ℥ss., with an equal bulk of water, given every half hour. This last remedy, for my first employment of which, by the way, I am indebted to your own suggestion, I have found exceedingly pleasant and effective in cleansing the throat and correcting the putrid and offensive odor. In employing the tinct. of iron as above suggested, I used to think that its efficiency was due to its general or constitutional tonic action—the same as in erysipelas. But, for some time past, I have been led to

believe that much of the benefit resulting from its use, is due to its direct local action, and that it should, therefore, be regarded as a topical as well as a constitutional remedy. Latterly I have become confirmed in this opinion by the results of the use of this remedy, and of others similar to it, in the practice of other physicians. Some months ago I was called in consultation with my friend Dr. DeMund, of Wortendyke, in this county, to see some cases of diphtheria under his care. The doctor has, I think, been unusually successful in his treatment of this disease. His treatment, however, differs in no respect from that which I had been in the habit of adopting, except in the *size* and *frequency* of his doses of the tincture of iron. Instead of giving it in doses of from five to fifteen drops in a saturated solution of chlorate of potash every two or three hours, as had been my usual practice, he insisted upon the necessity of giving from ten to thirty drops or more, every ten, fifteen or twenty minutes, *night* and *day*. Now, it seems almost incredible that these large and frequent doses can be appropriated and utilized by the system. So far as constitutional effects are concerned, I think the smaller doses of the tincture of iron are as much as can be of any value; and it is more than probable, I think, that the exceptionally favorable results that Dr. DeMund is able to report, are due to the direct topical action of the remedy as a tonic and antiseptic, this action being intensified and assured by its frequent application. The Doctor is located in the upper and more elevated portion of the county—a district exceptionally free from malarious influences, and his success in diphtheria may, perhaps, be due, to some extent, to these favorable conditions. Nevertheless, I cannot but believe that it is

to a greater degree the result of the direct disinfectant and alterative action of the chlorate, &c., frequently, almost constantly applied, in the act of deglutition.

In this opinion I am still further confirmed by the published results of very similar treatment in the experience of Dr. Billington, of New York. In a paper recently read by Dr. B., before the N. Y. Academy of Medicine, and published in the N. Y. Medical Record, of March 26, 1876, he maintains that diphtheria is primarily a local affection, and that the local disease of the throat is itself the source of the constitutional manifestations, the same as chancre is itself the source of the constitutional infection in syphilis. In conformity with this doctrine, his treatment is based upon the principle of local disinfection, the indication being to destroy the contagion, and combat the absorption of the poisonous elements from the spot at which the local disease is manifest; failing in this essential, he thinks that constitutional measures are useless. The list of remedies he employs for this purpose, are the tincture of the chloride of iron, lime water, glycerine, chlorate of potash, carbolic acid, salicylic acid and sulphite of soda; the first named being by far the best as a local disinfectant. He also lays great stress upon the mode of employing these remedies; and for the purpose of securing their best local influence, he advises their internal use, rather than by the employment of brushes, sponges, &c. The topical use of spray, however, he advises in cases in which it can be used. Another point upon which he insists as a matter of prime importance, is that in whatever combination these remedies are used, they must be taken or used in very frequent doses, that is, as often at least as every half hour.

The success which Dr. B. reports is certainly exceptional. Of 124 dispensary cases, he reports 90 recoveries, and of 19 cases occurring at the same time in his private practice, all recovered but one. The average duration of his cases is six days; and he believes that by early, thorough and faithful persistence in these measures of local disinfection, he prevents systemic infection, and subsequent laryngeal and other complications.

To sum up my opinion, then, as to the value of topical remedies in malignant sore throat, I would say that I regard them as of great value, more particularly when very frequently applied by administering them internally, or at least without the mechanical irritation and violence that almost necessarily attend the application of these remedies by means of brushes, swabs and probangs.

In reply to the second question of the Standing Committee, viz: "In what morbid conditions do you rely upon calomel as a therapeutic agent?" I scarcely know what answer to make.

From 25 to 35 years ago, there was scarcely a morbid condition of the system, or a disease of any kind, in which I did not resort, in common with the rest of the profession, to the liberal use of calomel. In inflammations especially, whether acute or chronic, I regarded it, next to bleeding, as our main reliance both to arrest the attack, and also to promote absorbtion, and elimination of the products of inflammatory action. For many years past, how as I have learned that these diseases get well certainly without calomel as with it, I have ceased give it, except in very exceptional cases. Even those diseases in which the alterative effects of m

cury may be desired, I am in the habit of using the mercury with chalk, blue-mass, corrosive sublimate, or the protoxide of mercury, preparations which are much more manageable and safe. There is one disease, however, in which I always give calomel, and that is iritis. In this disease, I do not think anything can supply its place, whether the inflammation be acute or chronic, or of syphilitic origin or not; the effects of calomel in its treatment are uniformly so prompt and certain, that I would no more think of treating a case without it, than I would treat an intermittent without any of the preparations of bark; and this is, perhaps, the only disease in which I can be said to rely upon calomel as a therapeutic agent.

Cholera Infantum is another disease in which I sometimes give calomel. In some cases, given in combination with bismuth and pepsine, it seems to quiet the irritable stomach, and to promote the healthy action of the liver and intestinal tract. I do not, however, regard its use as at all indispensable.

But it is as a purgative, perhaps, that at the present time, I most frequently use calomel; and as such, in some cases, particularly in children, its effects are truly admirable. Children from five to ten years old, will often be seized with a sharp fever, with torpid bowels, a dirty and slimy tongue, entire loss of appetite, and very offensive breath. In such cases, a good calomel purge will often relieve these symptoms at once, and permanently.

Dr. Clendenin, of Coytesville, contributes two surgical cases of interest.

A. S. BURDETT, *Reporter.*

HACKENSACK, May, 15, 1876.

Cases by Dr. A. Clendenin.

Case I. *Annular Stricture.*—On the 2d January, 1875, I was called to Antonio J. Walbman, bookbinder in Coytesville; case of six urethral strictures, and five fistulous openings in groin and perineum, the line of the strictures covering two and one-half inches, almost entirely in the membranous portion. Each stricture was somewhat dilated with large conical pointed sound, after continuous pressure. After exploration, No. 3 Urethretome was passed, and strictures divided. Charrieri's penis glass and pump were used before operation and until final cure. After the division of all the strictures, a slippery elm dilator was almost constantly kept in, in order to control the size of the urethra during cicatrization, and in a soothing manner. This is specially required, because twice before—once in Berlin and once in New York—this man had been operated upon; but in consequence of his peculiar diathesis—both father and brother having suffered (one to fatality) with calculus, and this one having such tendency, and being spasmodic—beside the neglect of continuous dilatation, his relapses had been worse than the primary. Within two weeks he was off my list. But a few days since, I examined him, and find him, after the space of more than a year, in the enjoyment of perfect health and *full urethral calibre.* I especially recommend the slippery elm dilator and the penis glass. The fistulas by the latter were constantly relieved, and by the injection of a weak solution of sulph. iron quickly healed.

Case II. *Scirrous Cancer à la Rose.*—On the 3d February, 1876, I was called to case of the above—a woman over 70 years of age; opening 3 by 3½ in diameter; growth noticed and pains remarked about two years. The case had been diagnosed and operation recommended by more than one physician during this time. Prior to calling for me, she lost some 18 or 20 ounces of blood, and one physician called upon had (in consequence of age and anæmia) judged an operation impracticable. When I saw her I gave her sulphate of iron and quinine, arranged a support for the point of cancer, viz: left breast—prescribed liberal nutritious diet, and recumbent posture.

On the 11th Feb. I found her blood enriched and her general tone improved. On that day I operated upon her, lashed in my operating chair; the loss of blood was exceedingly small, she was under the influence of chloroform; the operation was slow, consequent upon

ligation of arterial branches immediately after division, beside the use of sesquioxide of iron. The entire breast was involved and removed, beside three intercostal glands and one ante-axillary complication. The arm was bound behind the back, so as to draw tense the pectoralis major, the incisions were in line for cicatrization to correspond with its fibers, in order to expedite healing and give a fall toward the sternum for discharges. Length of cicatrix now is 9½ inches; the weight of excised two ounces less than two pounds; the wound was sutured in lower end; kept constantly wet and cool with solution of "bromo-chloralum," one to eight of water; the surroundings were daily painted with tinct. iodine; her bowels regulated; no stimulation, but liberal nutritious diet, and syr. ferri. iodid., twenty drops with water three times a day. Thirty days from date of operation, the cicatrix was perfect, and to-day (April 11, 1876) she is walking around with increase of flesh, in good general health, attending to household duties. There was an enlargement of the axillary glands, which passed away, and no signs of recurrence appear.

COMMUNICATIONS.

BY DR. D. A. CURRIE, OF ENGLEWOOD.

I.

There has been rather more than the average amount of sickness during the past year, commencing with May 1st, 1875. I had an unusual number ill with pneumonia of a decided malarial type, affecting principally the younger members of the community.

During the latter part of May, running through June and July, there was also existing through this section, hooping-cough, bronchitis, acute rheumatism, an occasional case of scarlatina, and various other minor troubles of short duration.

August brought an unusual number of intestinal disorders peculiar to children—tonsilitis, &c. Sore throats were also very prevalent throughout the fall and winter months.

September brought a few cases of intermittent and remittent fevers, but during the winter months they gradually assumed the typho-malarial type, eleven cases occurring in almost as many different

families, running a course of six, ten, and even fifteen weeks' duration, which is something bran-new in this part of the country.

I was principally engaged in caring for these and a few more candidates for hooping-cough and measles, which brought me as far as December 1st; and in connection with this, will state, that I found Ext. Conni. Fld., in small doses, serviceable in allaying the paroxysms of hooping-cough and in shortening the disease, and when the bronchial secretion is very profuse, Ext. Belladon. Fld. has proved of great service, and in conjunction with it, oftentimes, Hydro-cyanic Acid acts beautifully.

During the summer and fall months I treated over one hundred cases of the disease, so I am speaking from my own experience.

December brought an epidemic of influenza, sore throat, pneumonia, bronchitis, acute rheumatism, and a continuance of hooping-cough.

January and February seemed to bring nothing of a contagious nature except mumps, of which I had several cases.

March and April were unusually healthy, with the exception of a few cases of typho-malarial fever, which seemed, however, to yield more readily to treatment than those cases which occurred during the fall and winter months.

A few sporadic cases of diphtheria have occurred through April and May, but none have proved fatal thus far.

II.

During the month of December, 1874, and January, February, March and April, 1875, diphtheria raged to an alarming extent in this valley. The disease was uncomplicated diphtheria, and proved fatal, sometimes by the accession of croup consequent upon the extension of the disease into the larynx and trachea; at others by exhaustion.

The first case occurred in a family of five, living in a large tenement, all of whom had the disease. Unfortunately for our town, the case was not treated correctly at the start. It falling into the hands of a Homeopathist, who treated it for teething, and then for worms, neither of which plans succeeding, the parent brought the child to my office in a dying condition, death occurring thirty hours afterwards.

The family being Irish, the usual "wake" was held, although three other cases were found to exist at the same time, and in three days afterward twenty-eight cases were found in families who had sent

delegates to the "wake." From this time until about the middle of April there were new cases occurring almost daily. One case of more than usual interest occurred, of which it will be well to speak. Mrs. W. expected to be confined about March 15th; was taken quite ill Feb'y 8th with what seemed to be diphtheria, sore throat, fever, loss of appetite, restlessness and considerable nausea and pain in the back.

Feb'y 9th, no better; all the symptoms worse.

Feb'y 10th, about the same, symptoms of labor coming on, which in fact proved to be so, as she was delivered of a very delicate male child at 10½ P. M.

Feb'y 11th, very much worse, the glandular swelling great, intense fever and delirium, tenderness over the abdomen, but no tympanites; lochial discharge very offensive and scanty; pulse 150; temperature 108½; respiration 50 per minute; throat slightly coated with dark grayish patches.

Feb'y 12th, 9½ A. M., surface of the body covered with a fine scarlet rash; tongue had cleaned during the night, which left it looking like a ripe strawberry; temperature 108; pulse and respiration same as day previous; delirium; abdomen swollen and tender; urine scanty and highly absumious.

Feb'y 13th, had a severe chill at 3 A. M.; lasted one hour; reaction very severe; six hours afterward the temperature 108 4-5, being the highest point my thermometer ever reached when tried on any patient.

Feb'y 14th, respiration 50; pulse 160; temperature 108; head symptoms not quite as severe; abdomen greatly swollen and tender to the touch; lochial discharge scanty and offensive; itching of the surface unendurable; cuticle had commenced to peel off the fingers and forearms; very restless.

Feb'y 15th, temperature 107; pulse 140; respiration 40; head clear; diarrhœa through the night and very restless; urine scanty and highly absumious; abdomen still tender.

Feb'y 16th, temperature 106; pulse 130; respiration 30; abdomen not quite as tender, but very much swollen; lochial discharge quite profuse and not as offensive. From this date until Feb'y 27th, there was a gradual abatement of all the symptoms, when the temperature was 99; respiration 22; pulse 100, and the kidneys acting very much better; urine albuminous; the throat, of which I have said nothing, remained very much swollen, and patches of a dull grayish hue would appear and disappear about every third day, and up to the 27th ult.

the tonsils and posterior nares dark and engorged; bled when touched; tongue very red and tender; from all of which she has, however, fully recovered, this 24th day of April, 1875.

A few words as to the treatment of this case, which consisted of sponging the whole surface of the body with cold water, as it came from the pump, every second or third hour, after which she would express herself as very much better, and drop off into a short doze. Opium, one grain every fourth or eighth hour; Quinine, gr. iii every sixth hour, for the first eight days, afterward in tonic doses; Hyposulphite Soda, grains 1-6th every second hour, comprised the treatment, except champagne and beef tea.

This was the only case out of 135 cases of diphtheria which occurred in my practice within a period of five months, that looked at all as if the diphtheritic character had been engrafted, so to speak, on to scarlet fever, and does look, and has led to the supposition, that these diseases are essentially the same, or, in other words, that diphtheria is a modified form of scarlet fever, unaccompanied by the scarlet rash. The case in question had suffered several years previously from diphtheria, but never from scarlet fever. It is an acknowledged fact that persons who have suffered from scarlet fever enjoy a comparative immunity from future attacks of that disease, or, if an exceptional case does occur, it runs a very mild course. Therefore, these two circumstances appear to contradict the belief that diphtheria and scarlet fever are essentially identical, so that if they proceeded from the same cause, we should naturally expect that persons who had undergone one form of the disease would be exempt from the other, or that at least the operation of the poison would be modified, as is usually seen to be the case in second attacks of scarlet fever and the other eruptive diseases. But this is not the case; diphtheria frequently attacks the same person a second and even a third time within a few months, and the subsequent seizures, instead of being more mild, have sometimes proved more severe than the first, for I have cases on record which, to my mind, fully illustrate the non-identity of the two diseases.

In treating diphtheria I relied principally upon chlorine in various forms, stimulants and quinine internally, together with chlorinated or carbolated injections into the nostrils, from the use of which I have witnessed the happiest effects. I have frequently seen children of 3 and 4 years industriously trying to use the syringe which had been provided for the purpose, as it "made them feel so good."

Whether there is a nest of the Bactivia diphtheriticus existing in the posterior nares or not, during the invasion of the disease I invariably find when that cavity is kept free from the fetid collection which exists in almost every case, that the patient, let it be child or adult, will rest better, from the simple fact that they can breathe free and unobstructedly, and not be obliged to keep constantly swallowing immense quantities of poison into the stomach, where nothing short of decomposition can be the result, whereby the septic poison is rapidly distributed throughout the system, poisoning the nerve-centres and causing death from inanition and failure of the heart's action, for I have witnessed cases of death from the disease when I am certain the heart's action had ceased from 1 to 2½ minutes before the subject stopped breathing.

A few words as to topical applications. With the very worst cases I used nothing stronger than the following:

T. Ferri. Mur. ʒiv.
Acid. Mur. Dil. ʒi.
Aqua Pur. ʒii.

M. Sig. 20 drops every third hour, with water; also apply to the tonsils with brush three or four times per day.

The dose named is for an adult. Here we have an abundance of chlorine, and those that were old enough to give an opinion, express much gratitude after each application.

Those who were never treated with tannin, sulphuric acid, ice, and many other quite reliable agents, did not get along nearly so comfortably, and, in fact, did not get along well until I placed them on this treatment, assisted, of course, by the nasal injection.

Of stimulants I cannot say too much in their favor, especially brandy and champagne with ice. To one case of the many I only will allude. Willie N., aged 10 years, had been complaining twenty-two hours; glandular swelling very great; tonsils and palate a dull claret color, studded with dull grayish patches; a profuse offensive nasal discharge; pale and dejected countenance; difficulty of breathing and swallowing; pulse 150; temperature 105. I immediately commenced the use of the nasal wash, with champagne and beef tea; small doses of Liq. Opi. Co. occasionally. This lad took within the ensuing eight hours one quart of the wine, with the effect of reducing his pulse to 110, and temperature 102, and a good deal better state of the whole system; same treatment was continued, with the addition

of the iron and acid mixture, and less or more of the wine, as occasion or the urgency of symptoms demanded. He made a complete recovery at the end of the fourth week.

Nasal hemorrhage occurred in over one-half the cases to a greater or less extent, which could only be controlled in some by the injection of a few drops of Ferri. Persulph. into the nostril by means of a hypodermic syringe.

But it is not my intention to theorize upon this subject, but to give in as few words as possible, the result of my experience and observation during this one epidemic of Diphtheria.

Of the 135 cases to which I prescribed, 18 proved fatal, 13 from exhaustion and 5 by the accession of croup. Nine deaths occurred before medical aid could reach their houses; these were among the very first that occurred.

III.

Abscess of the Larynx, Simulating Croup.

The Larynx in children is subject to several acute diseases, which, although pathologically distinct, are yet so alike in their symptoms, that the diagnosis can at times be determined only by a post-mortem examination. There is no class of cases, moreover, where in the matter of treatment, the power of accurate diagnosis is more desirable or can be of greater importance. It is not my intention to enter upon the consideration of those cases where the mucus membrane is the subject of morbid action. There is another class of cases which present the same laryngeal obstruction, which prove as fatal, and which from their greater variety are extremely liable to be mistaken for the former, but which differ entirely from them, in fact that the morbid action is extra laryngeal. In making my research into the history of this affection as referred to by Drs. Abercrombie, Fleming, Boaki, and Allen of New York, the more important diagnostic points are the following:

1st. The affection is more gradual in its onset, and does not endanger life so rapidly as croup.

2d. Difficulty in swallowing is in most cases a prominent symptom, and any attempt at deglutition at once induces a paroxysm of dyspnœa.

3d. In abscess, change of posture, and especially the horizontal position, aggravates the dyspnœa, and, like the act of deglutition, is apt to induce a paroxysm of suffocation.

4th. The cough is low and hoarse, and has not the clanging brassy sound of the early stage of croup. These characters, taken together with the history of the case, should be sufficient to place one on his guard for extra-laryngeal disease.

Case I. Mrs. E., a weakly, delicate female, aged 36 years, I found suffering from difficulty of breathing, which had been gradually increasing for eight days. Concluding that the disease could not be croup, I was led to particularly examine the throat. She had a clanging cough, coming on in fits; the face was dusky; lips blue; the pulse feeble and quick. It could not be ascertained that there was any pain in the region of the larynx, but upon looking into the back of the throat, it was seen to be somewhat congested and looked full. Deglutition is difficult and brings on cough and dyspnœa; externally, the throat looks full on each side. Had a consulting physician, who said she had dyspepsia, and I had better give her Carbonate Ammonia. Two days afterward I noticed she sat uprightly and could not swallow at all. Upon examining the larynx, thought I saw a slight fullness, and rather inclined to point posteriorly; concluded it was an abscess, and passed a needle into it, whereupon I found it contained pus. I passed a bistoury into the abscess and evacuated about four tablespoonfuls of thin pus of a very offensive odor, attended with the immediate relief of all the distressing symptoms. The lady made a slow but perfect recovery, the cavity continuing to discharge for about six weeks.

Case II. A weakly child, aged 8 months, was brought to my house, suffering from glandular swelling under the lower jaw, left side. No cause for the swelling could be detected, and the mother was advised to bathe the child with warm water and apply warm flax-seed poultices. One week after I was sent for to see the child. I found her suffering from difficulty of breathing, which she had been suffering from for about two days. Respiration was accompanied by a loud stridulous sound, audible throughout the room, which, with the accompanying dyspnœa, was at once suggestive of croup. There was a hoarse cough without clangor. The throat was examined but looked quite healthy. Upon examining the glandular swelling it had entirely disappeared; but there appeared a fullness, but no hardness in the lower part of the neck, especially during respiration, and the trachea seemed to be pushed slightly out of the mesial line toward the right. This fact, with the history of the case, and the revolution of the other

case, led me to suspect that I had again to deal with extra laryngeal. affection. Spts. Am. Aro. and warm poultices were ordered. Condition of the child remained the same for about a week, (the idea of croup was of course negatived), at the end of which time I determined to explore with needle, but failed to find anything. The poulticing was continued with stimulants and nutrition freely given. At the end of the third week I at last could feel a small rounded swelling about the level of the isthmuth of the thyroid and at the outer margin of the sterno-hyoid muscle. Pushing in a bistoury, fully three ounces of pus escaped. The cavity extended downward. Steady improvement in respiration resulted. The cavity healed in about four weeks. The child continued feeble for some time, but finally regained its health entire. In the Philadelphia Medical Times of June 14th, 1873, there are two cases recorded, and I have recently received word from Dr. Stephenson, of Edinburgh, Physician to the Royal Hospital for Sick Children, some very interesting cases indeed.

IV.

The Action of Mercury.

Recent experiments all tend to prove that mercury does not increase or improve the biliary secretion; in fact, has no direct effect upon it. But so long as they are confined to healthy organs, they can never demonstrate that it has no pathological action which was interfering with the performance of function. It is solely upon observations made in disease, that such questions can be determined.

To argue from physiological experiments alone, even when supported by the spectacle of a constitution shattered by mercury, is to act the play of Hamlet, with left Hamlet out. At the same time, the value of these experiments in discussing this question is great. They have been conducted with so much care and skill, and the results have been so very uniform and correctly decided, that any proof of a cholagogue action on the biliary secretion, must be very decided indeed, to shake their result; while we must be ever on our guard, least we are led away by old ideas; remembering also
mere relief of symptoms does not necessarily prove a c
effect of the remedy.

The effects of mercury are often appealed to in th
rangements of children, to support its cholago

question will therefore come to be discussed; but the subject of how and in what cases mercury should be employed, cannot be determined by a discussion of its effects upon the liver only; the whole subject of its action upon the economy must be embraced, if we are to arrive at any conclusion as to its use even in biliary derangements. The stomach, liver and bowels are not functionally independent organs, but bound up in the closest sympathetic relation with each other and the economy at large. Derangement of A may produce perverted action of B, and a remedy acting solely on A may be thus made to have a good effect upon B, or vice versa. Some of the intestinal derangements of children afford an excellent example of this. In a recent paper read before the Medico-Chirurgical Society of Edinburgh, by my friend, Dr. Stephenson, it was shown that in cases where both liver and stomach have been deranged, in many of which the liver seemed specially at fault, and where there was no indication of want of power in the stomach, an absolute return to the healthy state was produced, not by mercury, but by pepsine, which could only act upon the stomachic digestion. This example is very valuable, because both the action of the remedy and the results are clearly defined, and warn us that in judging of the action of a drug, we must not simply limit ourselves to its physiological action on organs we want to cure.

There is a very prevalent, I may say, a universal idea, or error, with regard to the action of mercury on children; it is, that they are less susceptible to its constitutional action than adults. This has arisen and is solely based on the fact that young children are rarely if ever salivated, while all other physiological effects are ignored. My opinion is, that in young children the constitutional effects, if any, are more readily produced, and that injurious results are more rapidly brought about. We have not salivation as a guide, but take another index, one that can be readily observed. In syphilitic eruptions in children, I have frequently seen very decided results in six days, from the use of a grain of gray powder night and morning. Here there is an effect from less than twelve grains. It is a therapeutic action, no doubt, and one therefore which may be evinced before physiological effects, but yet indicates that the constitution has been brought under its influence. A smaller amount, however, if otherwise given, will produce very perceptible influence on the economy. The first of the morbid [illegible] says Dr. Clark, is a state of pallor.

feebleness, sickness and fretfulness, with green mucus evacuations. These symptoms are frequently referred to as the infants' malady, real or supposed. They are in fact, the usual, the natural effect of the drug. Dr. Lewis Smith remarks, calomel when administered daily, has a very depressing effect; and Dr. West, referring to its employment as an alterative and laxative says, "there is no doubt but that used with either of these objects, it is a remedy of great value, and the objection to its employment is not that it fails to procure the desired end, but that it answers them at a greater expense to the constitutional power than was necessary."

Other remedies exert an alterative action over the secretions, without that depressing and irritative influence which attends the use of mercurials; much of the depressing influence may be avoided by a careful administration, and other effects are to be looked for in determining its action. The most important of these is the production of anemia.

The most extreme case of this kind was that of a child at the hospital for sick children, when for some indefinite reason, the medical attendant had prescribed one dozen powders of gray powder, containing one grain each; these were all administered, but as the child was still ailing, they were repeated by the parents, without consulting the doctor; and a third dozen had been got, but not given, when the child was seen. I have since then watched the effect on other children, and now regard anemia as a most important symptom to be watched for in the administration of hyr'g for constitutional affections of children. If then we take the depressing influence of mercury, and the production of anemia, and not salivation, as our tests for the physiological action, we may affirm that children are just as susceptible to its action as adults, if not more so. So much as to its baneful effects. I turn now to its employment in intestinal derangements, and select one of the least complicated class of cases, viz: where an otherwise healthy child is suffering from constipation, and is passing white, chalky motions, all are agreed that such a condition is the result of imperfect digestion and the absence of bile in the intestines. I have treated such with mercury alone. The results have been sometimes no change in the character of the motions, but considerable griping and pain. When further action occurs, the bowels are more freely moved, softer in character, and mixed with green. Finally, the appearance is entirely changed, and the mercurial motions are obtained,

which continue for some days. Stopping the remedy in the favorable cases, a return of the evacuations takes place, but very gradually and seldom without some other remedial agency; while in the unfavorable, the old chalky stools again appear. To others, I leave to explain as they like, the nature and cause of the green evacuations. Whether from the coercion of some tardy flowing bile from the gall bladder or not, certainly, when we consider the result of the explanations, and of the successful cases, the frequent failures, and necessity for other remedial agents to establish a cure, there is really no evidence of any special action in such cases on the function of the liver, which can in any way controvert the results of the physiological experiments. A dose of castor oil, and regulation of the diet, will in many cases suffice to bring about a more speedy result than can be obtained from the use of the hyr'g alone. When compared with other remedies which have a supposed action on the liver, as rheum and phos. soda, its action is far from satisfactory. Its cathartic action alone, by unloading the bowels and freeing the circulation, is quite sufficient to explain the results.

Jaundice in children might also be referred to, but it is unnecessary to discuss in detail, as it is an affection which yields to the very simplest treatment, and entirely without mercury. There is another class of cases which go against mercury very strongly; it is when there is a diarrhea with copious white, watery evacuations without any indication of inflammatory action; in these it is apt to produce its irritant action, changing the color to green, but without any improvement in the child's condition; in fact, it is not the liver that is primarily at fault, and even did minute doses produce beneficial effects, I should ascribe its effects to its action on some other organ.

The employment of mercury, therefore, to my mind, must be based upon other reasons and for other ends than a direct action upon the biliary secretion. To best determine what these are, we must look to other actions than those we have mentioned. Although physiological experiments have not proved just how and in what way it operates, that is no reason why it may not be used after the manner of a rational empiricism. In obstinate and protracted retchings of a bilious attack, I have seen the vomiting arrested by a few grains of calomel in sugar, laid on the tongue and swallowed, when other remedies had failed, being at once rejected; also in cases of vomiting with robust children where it is protracted, the bowels confined and

no tendency to irritable mucus surface. This seems to be a sedative action, but must not be taken as identical with that spoken of by some writers, where it is given in small and repeated doses. Vogel remarks in dyspepsia caused by abnormal irritation of nutrients, the child is to be kept upon strict diet for some days, nothing but mucilaginous broths, &c.; and then goes on to say, "calomel in one-eighth gr. doses, given two or three times daily, exercises an extremely beneficial effect upon such an irritable mucus membrane; it produces a few green evacuations, the tympanitic abdomen becomes smaller and softer, rest and sleep follow, and the child begins to digest again." This is one of the errors medical men fall into; the diet is regulated, the cause of the ailment in all probability removed, but the credit is given to the drug. It is certainly surprising to find Vogel making such a statement, when on the previous page he clearly states that "the whole basis of treatment depends upon strict diet, or the deprivation of food, as rest in general, and of the diseased organs in particular, forms the first principles of therapeutics." The irritable condition for which calomel is given needs more accurate description than merely dependent upon "abnormal irritation of the nutrients." As I have never prescribed it in such cases, or in any other form of irritable mucus membrane, I simply question its utility, and ask for greater accuracy in description regarding the cases where it is of service. Combined with opium it is often given in inflammatory affections of the bowels, but the good effects may so justly be referred to the opium alone, that I shall not enter upon this method of its administration. As an aperient in habitual constipation, there is no defence for calomel; but as a purge given once or twice, with some definite reason for its use, there can be no objection. In times past its supposed action on the liver seemed a rational explanation of its use, and, although we are now told this is a delusion and a snare, experience is in no way affected thereby, and mercury may still be employed to the decided advantage of our patients. In infantile syphilis, I have the greatest confidence in it; cases do recover under other treatment, but it does not follow that all would equally do so, nor is it certain that the cases so treated have recovered so rapidly. Whilst I would greatly limit the use of the medicine in intestinal affections, I believe that the outcry against it has caused us to overlook some of its beneficial effects when addressed to the constitution in general, and have become too timid in its employment where it is not

only perfectly safe, but possessed of greater power than any other article in the pharmacopeia. Dr. Hellyer, speaking of it in connection with diphtheria in children, says, "some of the worst cases in which recovery has occurred, calomel has been the remedy; it is not a drug to use indiscriminately in all cases, but only to children of moderately good constitution, and to cases in which the exudation is firm and thick, or causing laryngeal obstructions with sthenic symptoms. Experience shows me that where I have signally failed to produced change in some morbid action by the use of the iodide potassium or other preparations of potash, I have succeeded with the use of mercury.

Case 1st. A lad had some thickening of the head of the tibia, with effusion into the head of the knee joint; a previous attendant had administered acet. pot. and blisters to the part. I gave iodide pot., renewed the blisters, bandaged the knee carefully, and enjoined absolute rest, but with no improvement. The patient was not strumous or rheumatic, but by carefully sifting the family history, I got sufficient evidence to assure me that he might be syphilitic. I gave gray powders, and in a very short time the lad was walking about, and the thickening very much diminished.

Case 2d. A girl with an eruption resembling psoriasis, but the scales were found to be readily separable from the skin, very much like a crust; underneath there was a moist red surface, but without ulceration. She had been treated with iod. pot. and arsenic, but no effect; she was then given bichloride hyr'g, which was soon followed by a steady and rapid improvement. "No evidence of syphilis in this case."

The opinion with regard to the action of mercury in such cases is that the good effects are obtained not by its "operating on the blood," but by a direct effect on the cell element of the tissues themselves, stimulating their action in the various transformations through which they normally pass; that it has such an influence, can readily be observed by the eye, when employed in the treatment of condyloma, chronic impetigo, ulcers and the like. This is the first action of the remedy, which, if carried further, may pass the physiological line to the pathological, producing proliferation of the cell elements, and degeneration of the ultimate products.

It is to the first action alone that its use should be limited, and thus employed. I regard it in power as second to none in the pharma-

copeia. Its use, however, as such, should be as the spur or whip to stimulate, not to punish, to be given for a short time only, to be renewed occasionally if necessary, not to be continued throughout the whole course of the disease. To obtain its good effects, however, and to run no risk of harm, it must not be used indiscriminately. The state of the constitution must be considered; no marked cachexia must be present; the nutritive power of the tissues in general must not have been lowered by previous disease, they must still have retained their natural tendency to normal nutritive changes, otherwise the stimulus of the mercury may hasten the degenerative process. To note the character of the constitution, in making our observations, is too much neglected. It ought always to be a point of careful consideration; and my opinion, so far as mercury is concerned, is, that it manifests its good effects in the sluggish constitutions of the strumous and syphilitic diatheses, much more than in the active cellular transformation of the tubercular class, in which its depressing and irritating effects are much more readily produced.

In fact, it is in the constitutions which are most liable to those external affections where mercury is of service, that we are most likely to find internal morbid processes which are amenable to the internal use of medicine. Thus far and no further, would I theorize; not that its action is thereby explained, but a distinct line drawn, for our guidance in its use. From the above, then, let us draw the following conclusions:

1st. That mercury may be used to influence the constitution with perfect safety, and without any injurious effects upon the general health.

2d. That to obtain its therapeutic action, it is not necessary to produce its visible physiological effects, and that it becomes injurious as soon as these are manifested.

3d. That in children its injurious effects are as readily produced as in adults, if not more so; and that such must be looked for, not by its action on the mouth, but in its depressing influence and deterioration of the blood.

4th. That it should be used only so far, and with the object of stimulating the nutrition changes of the tissues, not the character of constituents of the blood; and that as such it should be used as a whip or spur only, that is, occasionally, and at intervals, not continuously.

5th. That its use in modifying acute inflammatory action is very limited, and requires further observation; but that there is no question as to its power over the products of inflammation, in starting the process of resolution and absorption where these have been arrested.

6th. That no number of cases improperly treated with mercury, no number of constitutions shattered by its abuses, no number of instances where cases have been cured without it, can in any way invalidate the results of its effects when it has cured when other remedies have failed, or lessen in any measure the position which I here defend, of a judicious use of the medicine.

It remains for me only to refer to the method of using mercury in the affection of syphilis in children, for my opinion is that its power over the diseased nutrition cannot be dispensed with, and is second to none, and I never care to treat a case entirely without it. It is to what extent should it be employed, that I would refer. Here you will find a difference from the general idea or mode of practice. What we can influence by mercury is not the syphilitic diathesis, but merely its pathological results.

The former never can be eradicated; but when diseased action occurs, that can be modified, and mercury aids in the return of a healthy action, but that attained, the continued use will never eradicate the pathological tendencies, which are inherent in the character of the constitution.

Mercury will cure the syphilitic diseases of the first year of life; but no extent of its use at that time, will lessen the tendency in after years to interstitial keratitis, or any later manifestation of the taint. Its use, therefore, as I have before said, be the whip or spur, while we follow up its action by other and safer means. I do not, therefore, continue its use after every manifest action of syphilis has disappeared, as recommended by *Diday, but stop whenever improvement is manifested, and change to soda et pot., iod. of iron, or cl. pot. which are most valuable remedies, but alone have not the same power as when combined with mercury. Under their use the symptoms may return, but the spur can again be applied; and in this way I have found that a fortnight's use of one or two grains of gray powder daily, is sufficient at any one time, and the longest period I consider it safe to continue it without interruption, or even less dose if it proves irritating to the intestinal mucus membrane.

* Diday on syphilis, page 262.

BURLINGTON COUNTY.

To the Chairman of the Standing Committee, &c.:

In the varieties of the diseases of the year, and their treatment, I have nothing unusual or new to record; neither has the amount or the severity of the cases been greater or more grave than customary. I have very [illegible] internally [illegible] this disease [illegible] malignant [illegible] [illegible]

[illegible]

[illegible] Reporter.

[illegible]

COMMUNICATION BY DR. STANLEY G. CLARK.

In answer to question 1st, founding my opinion upon my experience with over a hundred cases of diphtheria, since last July, I am led to the conclusion that topical applications are of undoubted value in the treatment of that disease. I think, however, that the agents employed should be of a mild, soothing, and gentle astringent character; strong applications of argentum, the mineral acids, &c., being of a doubtful propriety, if not positively injurious. Granting the theory that diphtheria is a general and not a local disease, and so will not yield to treatment until the system has been properly acted on, still, by keeping in check the extensive inflammation and consequent swelling that is apt to occur in the nasal passages, pharynx, &c., by means of local applications, we gain time for the effect of internal remedies and prevent that rapid prostration that is likely to take place from insufficient oxygen and consequent impurity of blood. Patients treated by me with external applications to throat, and without any appliance whatever, seemed to do equally well. Although a large number of deaths occurred in the district alluded to from malignant sore throat, I have been so fortunate as to lose but three cases.

In regard to 2d query, although, perhaps, not using calomel in my practice as much as many medical gentlemen of the present period, the reason for which perhaps it would be difficult to find an explanation; possibly, the force of example, or a desire to be fashionable, in discarding a good, old and reliable remedy for some new article of the journals, the virtues of which are ascribed to be magical, with which I desire to become acquainted; but, to say but little, upon a subject upon which so much might be said, or upon the virtues of a remedy upon which so much has been written, in the language of Dr. Headland, "It is the very prince of that class of remedies, unfortunately too few, that are capable of entering the system, of grappling with a disease of the blood, and of coming off victorious in the struggle." I am accustomed to use it, and rely upon it, in all those morbid conditions requiring an efficient hepatic stimulant; in verminous affections of young children; in some cases of cholera infantum, combined with chalk and opium; in primary syphilis, in which I regard it as the "sheet anchor of hope." I have, on occasions, allayed ob-

stinate vomiting, when no other agent seemed to be effectual; and I may say, in conclusion, that I regard it as a remedy that has given me satisfaction in very many morbid conditions.

TUCKERTON, April 26th, 1876.

COMMUNICATION BY DR. A. ELWELL.

I use ice in malignant scarlet fever, both internally and externally; also tr. ferri. mur., and sometimes paint the fauces with oil capsici. In diphtheria I use frequently a solution of sulph. hydrastin, applied with camel-hair pencil; sulph. zinc. as a gargle; potass. chlorat. on the tongue dry, coming in contact with the fauces in the act of deglutition. In the use of calomel, I rely on it in diseases such as pneumonia, catarrhal fever, pleurisy, &c.; some diseases of the eye; syphilis; gonorrhœa in its acute stage; also, in some diseases of the brain, spinal chord and their coverings.

During the summer we had a great many cases of cholera infantum and diarrhœa of children, and some few cases of dysentery. Intermittent fever we had in great abundance, so much so, had there been no other diseases to treat, we would have been kept busy with that alone. Most all the children sick with other diseases gave evidence of intermittent tendencies. During the winter hooping-cough has been very prevalent in our vicinity, and when not complicated with pneumonia or catarrh, gave us but little trouble; but in many cases this complication existed, and then it required our best efforts to get our little patients safely through. This spring has brought with it many cases of pneumonia, many of a typhoid character.

November 27th, 1875, I was called to Walter Norcross, 23 years of age; had been suffering from tape-worm for about one year; has seen about eighty-five feet of it. But to the case: I found him in convulsions, and between 9 o'clock P. M. and 10 A. M. the next day, he had had thirty-three convulsions; took about ℥vi. blood from the arm; gave him bromid. potass. grs. xx.; and tr. virid. gtt. iv. every three hours. I had forgotten to mention that he was dropsical generally. I gave calomel, squills and digitalis. In about three weeks he walked out, and was apparently as well as ever.

March 25th was called to him again; found him much the same as before, and in about the same length of time he had thirty-one convulsions; treated him as before, and on the fifth day of his illness

discovered on his face, scalp, chest, front and back, an eruption resembling very much varioloid. As there was small-pox in our vicinity at the time, I cautioned them, at the same time telling them that this eruption might possibly be occasioned by the bromide. Our County Medical Society met at Mt. Holly about that time, and I gave the members present a synopsis of the case and treatment, and asked the question, Will Bromid. Potass. produce such an eruption? Dr. Jos. Parrish, of Burlington, said it would; he had seen many cases of it in the institution over which he had lately had charge. No other member had seen such results from its use. My patient is again apparently well.

VINCENTOWN, N. J., April 24th, 1876.

POISONING BY OIL OF TANSY.

BY DR. R. E. BROWN.

On the morning of the 21st of February, at 10½ o'clock, I was called in haste to see a lady by her husband who informed me that when he went home he found her lying on the floor in the sitting-room, unconscious; he took her up and laid her on a lounge near by I answered the call immediately, and learned the following:

Mrs. G., aged 24 years, mother of three healthy children, the youngest fifteen months old and nursing, had experienced for several days past symptoms of approaching catamenia; she related the same to a lady friend, who advised her to take a few drops of the oil of tansy to assist nature in starting the secretion, which she concluded to do, as she had on two previous occasions taken about a quarter of a teaspoonful of the oil at each dose; and, accordingly, at 7½ o'clock on the morning in question, she poured into a small wine-glass *three teaspoonsful* of the *oil of tansy*, and swallowed it at *one dose*. After taking this heroic dose, which was half an hour after breakfast, in less than ten minutes she became so giddy and so cold and numb that she took to the lounge, and does not remember anything until about ten minutes after I reached the house. No one was in the house at the time excepting the three little children. Remaining in this condition for three hours, there is no doubt but what she had several convulsions; how many no one knows, and in one of them had rolled off on the floor, where she was found as already stated. I found her

in a comatose condition, head hot, extremities cool, respiration somewhat difficult, pulse about 95 per minute and irregular, face swollen, pupils somewhat dilated. I directed warm applications to the feet and extremities, and applied cold water freely and vigorously to the head and face, when, in the course of ten minutes, she regained consciousness sufficiently to swallow. I then gave her large draughts of warm water, as much as I could get her to swallow, and in less than five minutes it produced copious emesis. In the course of a few minutes I repeated the draught of warm water, and it had the same effect as before, rendering her quite sensible. I then ordered a cup of strong coffee, which she rejected in about fifteen minutes. After awaiting about fifteen minutes longer I gave her the second cup of coffee, and this she retained. The extremities had now become quite warm, the breathing more free and natural. She complained of pain in the head and seemed quite nervous. I now ordered her bromide of potassa with elix. valerianate of ammonia, with a view of diminishing the pain and to quiet her nervous system; then left, returning in about six hours, when I found her more comfortable, pain in head not so severe, and was not so nervous, skin moist and warm; ordered her to have warm gruels or broths, little and often. Saw her the next morning at 9 o'clock and found her much improved, although complains of dizziness when she attempts to sit up; pulse 80 per minute; pupils nearly normal; breathing freely; does not complain of any pain or burning sensation in the stomach. She continued gradually to improve and made a good recovery from the severe illness, with the exception of impaired vision of the left eye. Mrs. G. had previously enjoyed good health, and, owing to this fact, and swallowing the dose so soon after taking a moderately hearty meal, might to some extent prevented it from proving fatal. I might mention here that when I entered the room on the first morning of her illness, I could readily detect the odor of tansy, but much more so after vomiting. She tells me that she urinated very freely and often for several days after the beginning of her sickness, and could detect the odor of tansy in the urine for one week after.

I report this case as one of interest, from the fact of a recovery from so large a dose, as a case has been reported where a girl had taken a teaspoonful of the oil of tansy in mistake, and died in one hour after.

Mt. Holly, N. J., April 25th, 1876.

COMMUNICATION BY N. NEWLIN STOKES, M. D.

I have learned to rely upon topical remedies in malignant sore throat of scarlet fever and diphtheria, as valuable aids in the treatment of these diseases. I generally use carbolic acid and glycerine, about twenty drops of the acid to the ounce of glycerine, and apply twice a day, first cleansing the throat as well as possible with cold water. The antiseptic powers of carbolic acid are great, and several apparently desperate cases have terminated favorably with this application. I use calomel as an indispensable agent in almost all inflammatory attacks that will not yield to opium alone; in biliousness (so called), in many skin diseases, both externally and internally, and to allay vomiting in cholera infantum, &c. While this remedy requires care in its administration, yet I have no sympathy with doctors who profess *not* to give calomel, and believe such to be dishonest in their assertions, or unsuccessful in their treatment. It may be too much to say that I would give calomel in *all* inflammations, such as anginose affections, &c., but in the majority of them, in alteratives doses, I am partial to its use.

MOORESTOWN, 4th month 21st, 1876.

COMMUNICATION BY DR. TOWNSEND.

The past year has to us presented nothing of peculiar importance, except in some few individual cases, although we were kept comfortably busy most of the time. Topographically we are peculiarly situated, having really but half a practice in territory, the Delaware cutting us off on one side. Out from the river we seldom travel far enough to get out of the sandy soil into any alluvial upland or lowland deposits; hence all of our patients, through the extent of our semi-circuit, are subject to the same topographical influences, except elevations.

As to the amount of rain-fall or humidity, we are curiously influenced by our location. Storms coming from the west and northwest, are frequently diverted from their course, both by the river and Rancocus creek, which empties itself into the Delaware about three miles below Beverly; so that frequently in summer we are suffering with drouth and dust, when our neighbors over the river, or below the creek, are having frequent rains. This causes quite a difference

in the character and type of diseases prevailing in the different sections. Geologically considered, our locality presents no variety, except alternate and parallel belts of sand and gravel clay, running from south-west to north-east until they strike the river. On the sand belts, wells running over twenty-six feet deep, strike marl and yield hard water; on gravel belts the water is soft at all depths. These variations of course influence not only diseases but remedies.

We have had no epidemics the last year, except measles and hooping cough. In the treatment of the last, when coming under our care, we have succeeded best with fld. ext. castanea, tr. belladonna and chloral.

During the fall and winter, bilious remittent and intermittent fevers prevailed to some extent, with a few cases of typhoid of a low grade during the winter. During this spring, we have had a great number of cases of what seemed to be an epidemic catarrh, affecting the nose, throat, frontal and maxillary sinuses, and extending in many instances to the eustachian tubes and ears, always attended by a severe spasmodic cough, and in many cases complete aphonia. A few only presented pneumonic symptoms. In all the cases, the tonsils were swollen, uvula elongated, and the throat congested, but very seldom ulcerated.

I have seen no cases of diphtheria, or anything resembling it, although our homeopathic men report a great number of cases, with miraculous cures.

I have seen several severe cases of pleurisy within a few weeks, which yielded gracefully to verat. viride and warm applications.

In the way of new remedies I have nothing to report, except to add to the authority of more experienced men in the recommendation of milk in typhoid fever, used ad libitum in all stages of the disease. This is hardly a new remedy, but rather a diet in my experience more important to the speedy convalescence and sound recovery of the patient, than the enormous quantities of beef essence and stimulants mostly given. The essence made from three pounds of beef, often given in twenty-four hours, is more than a healthy stomach ought to be expected to digest.

In answer to the queries of Standing Committee, I would say first, that while having very little experience in malignant sore throat, I rely entirely upon local or topical remedies in all forms of ulcerated throat, together with the application of cold cloths externally.

2d. While I use calomel in all cases of partial congestion, or irregularity of the liver, generally combined with blue mass, and podophyllin or aloes, I very seldom use it uncombined, and cannot say that I ever rely upon it any further than for its action upon the liver.

BEVERLY, April 23, 1876.

COMMUNICATION BY DR. R. E. BROWN.

Topical remedies in malignant sore throat are very useful, but I could not rely upon them exclusively. Salicylic acid in solution, as also the chlorate of potassa, with tinct. ferri. chlor. in solution, and used in the form of gargles, with tonics when indicated, and good nourishing food, has proved of more value in my hands than most other remedies; but as we have to vary our remedies to suit the particular conditions of the case, I do not adopt this course of treatment for every case. I believe calomel to be a valuable therapeutic agent in combination with other remedies in the treatment of some of the diseases of the brain and liver, when an active purgative is required—in heart affections consequent upon rheumatism, and as a topical remedy in some obstinate skin diseases.

During the months of July, August and September, I had a number of cases of typhoid fever of a somewhat peculiar nature. The course of the disease was more rapid than that of ordinary typhoid fever that I have noticed. The attack would commence very much the same as an ordinary intermittent, when in the course of four or five days, perhaps longer, it would assume that of a typhoid form, the emaciation being very rapid, and a tendency to diarrhea, with considerable tympanitis, and delirium; these symptoms would last with greater or less severity from three to five days longer, (there would not be constant delirium that length of time), and then would begin to convalesce, and in the course of two weeks from the beginning of the attack, although debilitated, would be able to go out in the open air.

The majority of my cases occurred in children over four years of age. The treatment consisted in the use of sulph. quinia in antiperiodic doses, liq. potass. citrat., with spts. ether nit. for the first few days; and as soon as emaciation set in, vegetable tonics, milk punch, nourishing broths, &c. Checking the diarrhea with astringents, chalk

julep with tinct. kino; this treatment in most cases proved satisfactory.

These cases are confined principally to one locality on one of the streets in the south-eastern part of the town. I could not trace its cause, unless it was the low meadows that were in the rear of this street, and which were at times overflowed by high tides, allowing the water to remain there a sufficient length of time to become stagnant.

MOUNT HOLLY, N. J., April 24, 1876.

COMMUNICATION BY DR. THEOPHILUS PRICE.

1. The value of topical remedies in malignant sore throat? (diphtheria of course.)

Ans. I would hardly dare treat a severe case without. Formerly, I used strong solutions of nitrate of silver, and I am not convinced that I have found anything better; but I now use weaker solutions, seldom exceeding 20 grs. to ounce whenever I use it; but in later years I have used tr. ferri. chlor., ½ or ⅓, combined with honey or syrup. It tans and shrivels the pseudo-membrane, and apparently modifies the morbid action favorably. The objection to its use, is the disagreeable taste and supposed acid reaction on the teeth.

The greatest drawback to the use of topical remedies, and apparent uselessness of them, is, probably, owing to the failure of nurses and care-takers of the sick, to properly and skillfully apply them. If the practitioner could see that the membranes were touched every time, success would be greater. Of course, these suggestions only apply when the false membrane is in reach.

I am old-fashioned enough to apply weak mustard plasters, or slightly irritating poultices to the throat, externally, to maintain moisture and irritation, but never to blister.

I have used ice carefully in a few instances, but confess to a want of courage, to depend on it.

2. The morbid conditions in which I rely upon calomel as a therapeutic agent?

Ans. Almost none. I use it combined with opium, in bilious and mucus diarrheas, and in dysentery; sometimes in hepatic affections; seldom in fevers; never as an antiphlogistic; very seldom as a direct alterative; very seldom as a purgative.

The past year has been one of general health along the shore. No epidemic has invaded this section of Burlington county, except the recent visitation of epidemic catarrh. At Bass River, however, six miles distant, a fearful scourge of diphtheria has prevailed during the greater part of the winter and spring.

Dr. Reeves, the practitioner in that neighborhood, has treated, probably, 150 cases. It is estimated that 25 per cent. of the population of the infected district was affected with the disease, in a greater or less degree. The mortality probably reached 10 per cent. of those affected. It is remarkable that the complaint should have shown so much virulence, and remain confined to so small an area; all the cases having occurred within a territory not exceeding six miles square. I am not aware of any decided cases in Tuckerton. The population of the infected district will not exceed 800 persons. Dr. Reeves thinks that evidences of contagion are quite clear.

An epidemic catarrh has been our only severe complaint during the winter; exhibiting the usual symptoms; running its usual course in two or three weeks; but prone to relapse, and showing quite a tendency to laryngeal congestion. Croupy cough and dyspnœa, with pain in the larynx and trachea, were frequent symptoms in the earlier stages.

TUCKERTON, N. J., April 19, 1876.

CAMDEN COUNTY.

To Chairman of Standing Committee, &c.:

Your reporter from Camden county has not been able to gather as much material as he could have wished; owing to the fact, that but one of the members of the Standing Committee has sent in any report, namely, Dr. Snowden of Waterford. Therefore the report must necessarily be implenary, and can not cover the whole of the county, as we could have desired.

In the city of Camden, and vicinity, we have had during the past summer, and more especially in

the month of August, more than the average amount of rain; in fact, the meteorological reports of the United States show an unusual amount of rain-fall throughout the Middle and Eastern States, during the same period. Notwithstanding this, the reduction of the temperature was not so great as might have been expected from the frequent rains; but we think that the exegesis lies in the fact, that the nebulæ which encompassed the earth, offered a serious obstacle to the heat waves, from passing unopposed into the illimitable space; but reflected many back again to the earth, producing a condition of oppressiveness which was felt, very sensibly, by the aged and very young, and those who possessed enfeebled constitutions. Taking all conditions into consideration, we could not complain of any very severe endemics nor epidemics; although, throughout the whole year, those two mortal enemies of the children, scarlatina and diphtheria prevailed, but not to an alarming extent, save and except in a few cases which put on a malignant type, and marched on to a fatal conclusion, in spite of all medical agency. Some hooping cough prevailed in the early part of summer, and also a few cases of enteric fever, throughout the whole year; but nothing in their character worthy of special note.

There was no great amount of intermittent nor remittent fever, owing, perhaps, to the rapid improvement in paving our streets, and filling up the low places; and, with the exception of the rather unusual amount and threatening nature of diphtheria and scarlatina, the past season was not a very sick one.

As autumn approached, diphtheria seemed to get the advantage of its companion, and presented, in many instances, quite a malignant character, although it

generally yielded to early and energetic treatment; yet in the city of Camden alone, there were about seventy deaths, making one to every five hundred and seventy-two—allowing our population to be 40,000 inhabitants. The remedies which your reporter generally made use of in the last named disease, were internally, tr. of the chloride of iron, chlorate of potassium, quinine, wine-whey, milk-punch, egg-nog if necessary, &c. Topical remedies most relied upon, were iodine liniments and steaming with lime-water, every quarter or half hour; this should be continued until the diphtheritic effusion has detached itself, and the respiration is decidedly improved; when it may be gradually discontinued, but resumed again if there should appear the least symptoms of dyspnœa. The treatment above recommended has proven so satisfactory in the hands of your reporter that he believes it to be worthy of careful trial.

My friend, Dr. Branin (of Blackwoodtown), informs me that he has used in diphtheria, as a topical application to the throat, the solid stick of nitrate of silver, with the happiest effects. This, of course, may appear plausible, when we take into consideration the possibility of the disease being a local one in the beginning; but, in a report like this, the pathological nature of disease cannot fairly be discussed. In respect to the treatment of scarlatina, we will only mention one topical application, that is, the steaming of the throat with lime-water, in all anginose cases, as the condition of the throat in this disease is very similar to that which occurs in diphtheria; hence, what will benefit the one, will also benefit the other. In many of the cases of scarlatina, we had the common sequla, dropsy, following them, which generally yield-

ed to the iodide of potassium and bromide of mercury; although in some cases it would not, but required other remedies more potent in their diuretic and diaphoretic properties. Recurring to the enteric or typhoid fever, we embrace this opportunity of asserting that we have treated it according to the American system of practice. As we have not, as yet, a sufficient amount of confidence to adopt the heroic plan of the German pathologists, which is in giving enormous quantities of quinine in an extremely short length of time, with a view of reducing the temperature of the body more rapidly, as they assert, than by any other mode of treatment; if it can, by a successful competition with the American mode of treatment, prove itself superior, then we will gracefully bow and acknowledge its virtues.

About the middle of February, variola made its advent into our city, in a locality wherein the typhoid fever was then prevailing, opposite to which a culvert emptied its noxious and organic contents on a large marsh. From this source, we believe, the "contagium virum," or the living disease germs, had their origin. All the cases of typhoid fever which your reporter met with, except two, were found here, and all the cases of variola which we had the misfortune to see, were also found here. Now we do not wish to be understood to say, that in this place was the origin of variola, but we do pretend to say that the close proximity of the place wherein these two diseases were first found by us, where these immense quantities of organic matter were deposited by the culvert, shows a close relation between putrefaction, fermentation and zymotic diseases.

It will be understood that we do not presume to

give the *cause* of any disease, for the real *causes* of phenomena escape us. In sound philosophy, the word *cause* should be reserved for the divine impulse which formed the universe. We can detect only correlations. One phenomenon succeeds another, and can not exist without its manifestation; by abuse of language we then say there is relation of cause and effect.

Whilst we are dwelling upon this phase of the question, we might as well notice the condition of our city. Now it is pretty well known to every observing mind, that it is not so favorably located as those cities which are on more elevated sites, hence its drainage must be more or less defective, and it is. Therefore, it is our opinion, that in a place so level as this, and all parts of it, being so little above the common water level, that the attempt to drain the immense quantities of organic matter which must necessarily accumulate constantly, by small culverts, many of which run nearly north and south for considerable distances, and not directly into the river, must necessarily prove a failure. It is also well known to every observing physician in Camden, that many if not all the culverts in the city, are partially filled with earth and organic matter which are never washed out at any time thoroughly by the rains; therefore, they become the source of infection, and the inlets which are constructed for the purpose of draining off the surplus water from the streets, become the foci of infection, and the frightful source of many if not most of our zymotic diseases; and also the source of our water supply is poisoned by the drainage of six large cities, depositing tons of organic matter into a tidal stream which ebbs and flows to and fro and spreads its

noxious contents on either shore and on the marshes, to become the matrix in which the germs of zymotic diseases are engendered. And strange to say at this enlightened day, it is from such a source that we are now drawing our water supply. Is it any wonder, then, (all things considered) that we have prevailing all the year round, zymotic diseases?

These truths are sufficiently apparent to all candid men, to create a feeling of surprise in every intelligent physician's mind, at the general apathy of the people toward things which so vitally concern their temporal existence.

In the language of "the Builder,' we might properly exclaim:

> "Our drains! our drains! our death-dealing drains!
> Choked up, with no outlet for rotten remains;
> Chronic hot-beds of typhoid, full of foul silt,
> Reflecting our ignorance, proving our guilt,
> And showing that we have been riding rough-shod
> O'er nature, and morals, and maxims of God.
> For pure air and water, in cities and plains,
> Spell health, if we keep right our dwellings and drains."

During the winter which has passed, we encountered a few cases of asthenic pneumonia, which rapidly tended to a typhoid condition, and in which early stimulation was urgently demanded. No other peculiarity was discerned in their character.

And now, owing to want of time, we shall have to pass by the chronic diseases, as they take up much of our time in their description.

In conclusion, we will give, as well as we can, an account of one very interesting special case.

We were summoned on the third of January, 1876, to attend a Mrs. B., of the city of Camden, aged

about 48 years. On first appearance we were led to believe that she was either pregnant or suffering from dropsy, but after more careful examination, we could distinctly feel a large, hard tumor above the pubis, and to the right of the abdomen. There was also a large quantity of fluid in the cavity of the peritoneum. Carefully continuing the examination through the vagina, the tumor was found to be attached to the uterus. The uterine sound could be passed into the organ the ordinary distance, showing that the tumor was not intramural, but subperitoneal, and seemed attached to the right walls of the uterus. At that time the tumor appeared to be about 8 inches in diameter, very dense and round, and so situated as to make the removal of it by an operation very precarious and problematical. After having had two consultations, one with Prof. Agnew, and the other with Goodell, both confirming the previous diagnosis—that the tumor was a subperitoneal fibroid, and could not be removed without in all probability proving fatal to the patient, no other course, then, was left to us, but to continue the medical treatment. Therefore, we decide to commence at once, with hypodermic injections of some preparation of ergot, and in view of the painful and irritating effects of ergotine, we caused to be prepared a pure aqueous extract, which was used daily, hypodermically, without producing but very little local irritation and no abscesses at all. We have continued its use up to the present time, with marked effect upon the tumor, as it appears now to have been reduced at least one-quarter of its original size, but still not sufficient to prevent abdominal dropsy. Owing to the mechanical obstruction of the circulation of the blood, from the great size of the tumor, a pale

straw colored fluid collects in the peritoneal cavity, very rich in albumen; and to get rid of this fluid, which accumulates very rapidly, it becomes necessary to have frequent recourse to paracenticis abdominis. This operation has been performed ten times since the 3d of January, 1876, and over two hundred pounds of fluid taken from the abdominal cavity. After each tapping, the patient feels very much relieved for about two, and sometimes three weeks, or more, when it becomes necessary again to perform the operation.

Notwithstanding the immense quantity of albumen, which necessarily must have been drawn away in the several tappings, there has not been so much emaciation as naturally might have been supposed, and the patient is able to be around the house, and attend to some trifling domestic duties, and, perhaps, may live for many years.

J. M. RIDGE, *Reporter.*

CAMDEN, May, 1876.

THEORIES OF FERMENTATION.

Liebig and his followers maintained that the agents which produced fermentation were certain decomposing albuminoid substances. That when these were placed in a fermentable fluid, by the motion of their atoms during decomposition, they excited a movement of decomposition among the atoms of the fermentable material, thereby occasioning the splitting up of its molecules, and the formation of new compounds. During this process, the ferment neither took anything from the material, nor added anything to it; the decomposition being effected solely by the atomic motion of the particles of the ferment. Certain microscopic organisms which had frequently been observed in fermenting fluids were held to be only incidentally present, the process taking place quite as well without them. Thus, by this theory, fermentation was a correlative of death, being an oxidation or decay.

Pasteur, on the other hand, holds that the phenomena of fermentation are correlative with life; every process of fermentation (properly

so-called) being effected by the growth and multiplication of characteristic organisms; and that no such process ever takes place without an incessant development of living cells, which grow and multiply by consuming a portion of the fermentable material; the two phenomena, viz: the chemical change, and the organic growth, commencing and ending simultaneously. His experiments have shown that free access of air cannot induce fermentation without the presence of these organic germs.

The fact that organisms of the same class are constantly present in certain infectious diseases has led to the belief that they bear the same causative relation to those diseases as the organisms of fermentation do to those processes; or, in other words, that each infectious disease is produced by a specific organic germ.

Among the principal arguments adduced by the advocates of the "germ theory," are—

1st. The specific or uniform character of diseases of this class, their variation being only one of degree, and not of kind. This uniformity leads naturally to the conclusion that they are due to a specific or uniform cause.

2d. The permanence or durability of the disease-producing poison or germs; it being well known that they may lie dormant for years without losing anything of their potency, showing in this respect a perfect correspondence with the organisms of fermentation.

3d. The period of incubation, or the time that elapses between exposure to infection, and the manifestation of the symptoms of disease, corresponds with what may plausibly be regarded as the period of development of the organisms; whereas, if the morbific agent were an unorganized nitrogenous poison, it would be difficult to understand why it should not produce immediate effects; and it would also be difficult to conceive of its reproducing itself, as the infections generally are known to do—another respect in which they resemble the organisms of fermentation. It is strongly maintained by many observers that putrefying animal and vegetable matters, as sewer contents, &c., are incapable of generating typhoid fever, or any other specific disease, in the absence of the disease-germs; but that, by furnishing a most congenial habitat, in which the germs, when once deposited, can multiply to an indefinite extent, those substances become the chief agents in the propagation of such diseases.

The agency of the parasitic fungi in numerous diseases of the vege-

ble kingdom, as well as in those affecting certain of the lower orders of the animal, is generally conceded. In the disease (mentioned by Carpenter and other writers), known as pébrine, which prevailed among silk-worms in the south of France, causing an immense annual loss to the breeders, the bodies of worms strongly affected with the malady were found to be "swarming with minute cylindrical corpuscles, about 1-6000th of an inch in length." Pasteur, who carefully investigated the circumstances under which the disease was engendered, found that it was communicable to healthy worms by the transmission of these corpuscles, and that it could be checked and even exterminated by the adoption of proper measures to prevent their growth and spread. It was also found that the corpuscles could pass into the undeveloped eggs of the female moth, thus causing the hereditary transmission of the disease. It may not be considered improbable that researches of this kind may eventually throw some light upon the nature and mode of transmission of hereditary disease in the human family.

Communication by Dr. Snowden.

The summer of 1875 was particularly free from disease in this vicinity. Cholera infantum, which usually prevails on account of the bad management of infants among the factory people, was comparatively rare. There were a few cases of dysentery among adults.

Late in the fall, an herpetic affection of the throat prevailed, but not a single case of diphtheria. These cases were soon relieved by the internal use of chlorate of potassium, which seemed to have a better effect than the use of that salt as a gargle.

A number of fatal cases of diphtheria occurred in Berlin.

During the winter months, which were remarkable for warmth and dampness, diseases of the respiratory organs were exceedingly prevalent in Winslow, scarcely a family escaping; while the town of Waterford, four miles distant, enjoyed almost perfect immunity from such diseases.

In Winslow the water in the wells was within two or three feet of the surface of the ground, while in Waterford it was fifteen or twenty feet from the surface.

Much has been said of late in the "Journals" against the common opinion that unseasonable weather produces disease. The summer

was unusually cool, and it certainly had no deleterious effect in this part of the county; on the contrary we were unusually exempt from disease. The winter was remarkable for its high temperature, and in a favorable locality diseases of the respiratory organs were developed to an unusual extent, showing, that in suitable localities, diseases incident to the unseasonable weather may be developed.

I note a case of typhoid fever, occurring in a delicate hysterical girl, 20 years old, who, owing to excessive nausea, took neither nutriment or medicines by the mouth for four weeks. I prescribed injections of strong beef tea, made from Liebig's extract, and gave her medicines in the form of suppositories, with the result of a good recovery.

WATERFORD WORKS, March 10, 1876.

CAPE MAY COUNTY.

REPORT BY DR. V. M. D. MARCY.

The only epidemic that has visited our County for the past year, has been an influenza, so commonly called "the epizooty." We have been remarkably free from diseases of an epidemic character, and although we have had about our usual allowance of sickness, there have been only our epidemic diseases, and they of a moderate degree of severity. There has been some little scarlet fever, whooping-cough, measles, diphtheria, &c., but nothing approaching a respectable epidemic. The extreme mildness of the winter months, saved us from much pneumonia, rheumatism, &c.

As to the value of topical applications in malignant sore throat, I can only say that while I would not by any means depend upon them alone, yet would I as little discard them, believing them to have great value as an adjunct to constitutional treatment. Diphtheria is about the only form of malignant sore throat we have had here for the last fifteen years, and I am satisfied that topical applications are of great benefit. Of them all I have found nothing better than nitrate of silver and tinct. mur. ferri. After trying several other much vaunted applications, I have almost invariably come back to these old "stand byes," and rested there.

The morbid conditions in which calomel is valuable as a therapeutic agent, are so many and so varied that I know not where to begin.

I must confess myself to be an "old fogy," if to continue to believe in the power and efficacy of the hydg. chlor. mit. is to be one. I have no sympathy whatever with the "hue and cry" raised against this valuable old servant. The effort made to expel it from the materia medica, will get no help from me; and while I deprecate the abuse of the medicine as much as any one, I must still claim for it all that the physicians of olden time did. Its power and benefits are so varied, that it would be impossible in this hasty report to begin to enumerate them.

CAPE MAY CITY, May 9, 1876.

CUMBERLAND COUNTY.

To Chairman of Standing Committee, &c.:

The sanitary condition of this district has been more than usually good during the last reportorial year. A winter of unusual length and severity, was followed by a spring and summer and autumn of remarkable healthfulness. The severe and persistent cold of the winter was not accompanied with the usual array of bronchial affections, doubtless by reason of its even severity. The abrupt thermometrical changes incident to our climate, bring about most of our respiratory troubles. Situated as we are, so near the Delaware Bay on the southwest and the seashore eastwardly, with the intervening dry land of an entirely level mold, it is possible for our people to avoid the mischievous effects of these sudden and frequent variations in temperature, only by timely and suitable precautions in the way of clothing and other preventive measures.

Pneumonia and catarrh, when occurring, are usually of a sthenic type, at least sufficiently for a thorough purge at the commencement of treatment. They are

marked, it may truthfully be said, invariably with a malarial tinge. The cough accompanying throat and chest affections, frequently observes its quotidian or tertian exacerbation, with all the precision of a first-class intermittent. Remittents occurred casually during the last of spring and early summer. These more uniform functional derangements are the usual miasmatic manifestations in this district, and are all that is left us from the extraordinary agricultural improvements accomplished in the last few years.

Enteric fever is unusual. Other enteric diseases were few during the summer, always of a mild form and controlable. Infantile cholera was almost equally infrequent through the summer months. The absence of the steady oppressing heat usual in July and August, tided the little bottle dependents over this intensely dangerous part of their career.

Last autumn was mild and dry, and during this portion of the year our district cannot be surpassed for healthfulness. Pneumonia occurred occasionally during the past winter; our physicians recognized quinia as the great remedy. Diphtheria was reported as appearing among us. The membranous or herpetic sore throats, doubtless, furnished these cases. The diagnostic distinction between the two is marked. No disease indicates real blood-poisoning, more than diphtheria. The general prostration is so noticeable and the enlarged cervical glands always accompany its presence. When the disease is upon us it is not so often or easily cured, as some would feign make us believe. Membranous sore throat prevailed extensively during the latter part of the winter, and though of some continuance, under appropriate treatment was readily relieved. This throat distemper might be

said to have existed epidemically, and was succeeded by a genuine epidemic of influenza. Patients thus affected, complained of sore throat, with perhaps a degree of hoarseness and fullness of the nasal passages, extending into the sinuses. The entire head felt as if bound by some unyielding force, and there was a general aching, as they expressed it, throughout the body and limbs. Coincident with the experience of other physicians, the reporter never before knew persons to be so ill, or their illness of so long a duration, from only a cold.

Dr. Whitaker reported a good deal of bronchial and throat affections, with only a little of true pneumonia, in the city of Millville during the winter. Erysipelas occurred epidemically through the spring months in that city. The phlegmonous form developed itself in some of the cases. The eruption presented a brown hue, in thirty of the thirty-eight cases under Dr. Whitaker's care. A favorite local application of the doctors in these cases, was a mixture of comp. tinc. cinchon., quinia and muriated tinc. of iron, painted upon the surface. The ordinary solution of acetate of lead and sulph. zinc, sufficed when only the bright red hue presented in the eruption. The treatment consisted in prescribing calomel, ipecac and tartar emetic, in the form of pills, followed later by iron and q[illegible]ine. Dr. Newell reported much inflammatory r[illegible]atism in his practice. Among the e[illegible] mumps and hooping cough may be includ[illegible] mother, recently delivered of twin child[illegible] reporter, was just at the height of the [illegible] her accouchment. The children have [illegible] w[illegible] the first month.

A retrospect of the medical yea[illegible]

affections incident to the seasons, and differing little from other years. There is observable, however, with us a gradual increase of nervous affections. How far this may result from the different modes of life from former times, it may be suggestive to enquire.

In therapeutics, Dr. Newell recommends chlorate of potassium in much larger doses than are ordinarily prescribed. He thinks the inefficacy of the remedy due to the limited quantity used, rather than to the want of remedial value.

With reference to those two topics whose consideration you propose—

1st. The value of topical applications in malignant throat-disease. Topical applications are important, yet subordinate to our general tentative treatment. When violently applied, they may only increase the harm. Ice in small pieces, allowed to melt in the mouth, are invariably grateful to the patient. Cold water compresses or hot moist flannels, as may be most agreeable, afford much comfort. A trial of inhalation of aqua calcis cannot rightfully be omitted in malignant diphtheria. Experience declares a proper choice from the long array of gargles to be serviceable.

2d. The morbid conditions in which you rely upon calomel as a therapeutic agent. Calomel is undoubtedly a beneficial therapeutic agent in the hepatic disorders so constantly accompanying our summer and autumnal diseases, and especially beneficial at the beginning of the attack, as a preparatory treatment. While calmly regarding the plausible theories promulgated, we cannot practice without calomel as a therapeutic agent in the morbid conditions, and in the manner just mentioned.

T. J. SMITH, *Reporter.*

BRIDGETON, May 13, 1876.

ESSEX COUNTY.

To Chairman of Standing Committee, &c.:

It has been my custom during the years I have acted in the capacity of reporter, to forward a circular letter to the members of the District Society, asking for items of interest to assist me in making my annual report. Although the Society has over fifty members, I have never received above six replies in any one year. It must be apparent that it is almost impossible for a practitioner whose time is mainly engrossed with private labors which compel him to remain within calling distance of his residence, to furnish an elaborate sanitary history of a county, without information which can only be obtained by correspondence. I trust that, by calling the attention of members to this matter, I shall be favored in the future by responses from at least a majority of the Society.

I am indebted to Drs. Holden, Kipp and Pindell, of Newark, Pierson, Jr., of Orange, Chandler, of South Orange, and Love, of Montclair, for letters of interest this year, which favors I desire to acknowledge with thanks. The replies therein to the questions propounded by the Standing Committee as to the use of calomel, and as to the value of topical applications in malignant sore throat, will be given in the language of their authors.

Among the diseases of the acute infectious type which have prevailed in our county, the principal are diphtheria, measles, rubeola, ("German measles,") scarlatina, pertussis and parotitis. Diphtheria raged in the city of Newark and its suburbs during the colder months, and also in Montclair, proving fatal in

a large number of cases. Even to this date deaths from this malady have been weekly reported.

The epidemic of German measles was extensive, but in no instance did a case show a disposition toward severity. The symptoms were such as to warrant its consideration as a malady distinct from measles, from which a diagnosis could in the majority of cases be easily made; as, *e. g.*, the absence of a prodromal stage, the mildness or absence of the catarrhal features of measles, the color and duration of the eruption, the swelling of the sub-auricular and superior jugular lymphatic glands; its occurrence in those who were known to have had measles (and that too within a period of two months from the time of the appearance of the rubeola), &c.

Cases of hooping-cough and measles are reported at present in several localities. Pneumonia has been epidemic in Orange, East Orange, and the western part of the city of Newark for the past two months.

Dr. Love writes that typho-malarial fever broke out among the guests at the Mt. Prospect House, in Montclair, about August 1st; the cause, defective sewerage. His cases of diphtheria appeared in November and later, and seemed to have been caused, in almost every instance, by depraved sanitary conditions; he adds, in this connection: "Living as we do in a rapidly growing district, where houses containing water-closets and all the so-called modern improvements are constantly being erected on small lots with cess-pools and wells in close proximity, the questions of drainage, water supply and sewerage, are constantly forced [illegible] That attention to sanitary laws will sensibly [illegible] we have indubitable evidence. [illegible] in the fact that we have a

soil not yet saturated with the filth of centuries. While considering these matters, if we look further at the raids made upon the public health by the sale and use of poisons, the pursuit of dangerous trades, the eating of diseased meats, the adulterations of food and drinks, the bad ventilation of our homes, &c., we are led to wonder that the physical condition of our people is as good as it is."

Among modern surgical procedures, Dr. Pierson reports the satisfactory employment of the elastic ligature in several instances. The following history of one of his cases will be found interesting: "The patient was a lady aged 70 years; case, a malignant tumor situated between the left mammary gland and the clavicle, measuring in its longer diameter five inches, in its shorter three, and in thickness about two inches. It had been four years in developing, and for four months in a state of ulceration, with constant fetid discharge, and an occasional profuse hemorrhage; being so debilitated as to be unable to leave her room, it seemed evident that she must soon die unless relief was soon afforded her. Removal was determined upon, and as the patient objected to the use of the knife or cautery, but consented to the use of the elastic ligature, it was decided to give it a trial, and, with the assistance of Drs. Chandler and Lloyd, it was applied on the 17th of June. The patient being ætherized, a slight cut was made around the base of the tumor to form a groove for the ligature; a needle armed with a strong thread was passed behind the tumor at the centre, by which a double ligature was drawn through; the ends of the elas[illegible]
tied on either side, thus com[illegible]
the mass, a thread being tie[illegible]

prevent slipping. An anodyne was administered nightly, and a solution of potass. permang. employed as a dressing. The ligature gave very little inconvenience; indeed the general condition of the patient began to improve from the time it was applied. On the 28th the separation was so nearly complete, that the remaining tissue was cut with the scissors, not a drop of blood escaping. Cicatrization was complete at the end of a month, and the patient's health is now as good as that of most persons of her age. A great advantage of the ligature over the knife in this instance was that its use was almost bloodless, a point of importance in an anæmic patient."

I have to report a case of Housemaid's Knee, treated by aspiration and the application of a tight bandage, with a good result, two months having elapsed since the operation, with no apparent disposition of the bursa to enlarge again The trouble had been of six months' standing; it was becoming painful, and was a source of no little inconvenience to the patient, who had four children looking to her for support. Nearly an ounce of a highly albuminous fluid was withdrawn, a snug bandage applied, and the patient directed to use the limb as little as possible for a few days. The tissues anterior to the knee became red and somewhat tender, a condition which lasted but a short time, leaving the knee quite like its fellow in appearance.

Dr. Pierson replies to the questions of the Standing Committee as follows:

"1st. I am inclined to the opinion that topical remedies in malignant sore throat are of value as cleansing agents only. I regard hot water and hot [illegible] as of the [illegible] [illegible].

"2d. There are no morbid conditions in which I rely upon calomel as a therapeutic agent. Many years ago I dropped it from my list of remedies except as a mild, tasteless cathartic, and as such very seldom administer it."

Dr. Holden states—

"1st. My experience has convinced me that any malignant disease of the respiratory passage not directly the result of local inoculation is to be reached by constitutional remedies, and that local treatment is but the adjuvant to remove effete and offending matter or prevent blocking up of the respiratory tract, and therefore that escharotics, solvents, alteratives and diluents may be beneficial, but not *per se* curative; and I must add, as a point of importance, that salicylic acid has, in my hands, so signally failed to maintain its *quasi* reputation, that I do not now resort to it.

"2d. As to the morbid conditions in which calomel is relied upon, I have not had occasion to use or prescribe it but twice in ten years; believing that while its value is unquestioned, it is perfectly easy to succeed with other and less unpopular remedies. It is very rare in my experience to be unable to find a remedy that will effect all that we have been accustomed to ascribe to calomel."

Dr. Love remarks—

"1st. The result of my experience and investigations is, that in diphtheria, to attempt to remove the infectious element from the mucous membran[illegible] by mechanical detachment, by caustics, by chem[illegible] tions or by astringents, is useless and [illegible] Why? For the reason that the contagio[illegible] not confined to the false mem[illegible]

throughout all the mucous membranes involved, as well as in the fluids of the mouth. Mechanical detachment wounds the mucous surface, affording an entrance for products of decomposition into the tissues. I believe that the use of anti-septic and disinfecting solutions as gargles, or washes applied with the syringe or atomizer, may be useful in destroying infection and preventing general poisoning, but they do not limit the inflammation nor the exudation. To accomplish this object our only hope is in producing an abundant and rapid suppuration, for which hot vapor is the only topical application which gives any prospect of doing good.

"2d. I rely upon calomel in iritis and inflammation of the deeper parts of the eye; in primary, secondary and congenital syphilis; infantile diarrhœa, cholera and indigestion; to increase biliary secretions; to allay some forms of vomiting; in some skin diseases, both internally and externally; and, finally, whenever I wish to alter nutrition by affecting the blood-making organs."

Dr. Kipp "uses calomel as a topical application in phlyctenular conjunctivitis with most gratifying results. It is dusted into the conjunctival sac, and removed with a sponge a few minutes later." He "uses it in all forms of syphilitic eye affections, although he prefers inunctions." He places more reliance upon the mercurials in syphilitic eye diseases than upon any other remedy or remedies.

Dr. Chandler writes: "My experience with remedies applied locally, for the treatment of malignant sore throat, has been quite limited. In four cases of diphtheria I used salicylic acid in solution in water and glycerine (gr. v. ad. ℥i.) The tonsils and pharynx

were painted three times daily with this solution. Two of the cases recovered very quickly, the membrane disappearing in two or three days. The other two cases presented more severe constitutional symptoms, and as local treatment did not seem to check the local manifestation of the disease, I did not dare longer to withhold constitutional treatment. Tr. ferri. chl. was ordered, and both cases ultimately recovered. The iron acts undoubtedly as a strong local application, but as a constitutional remedy exerts its greatest beneficial influence."

Dr. Pindell states: "As to the value of topical applications in malignant sore throat, I confess to a firm belief in their utility, and am perfectly satisfied that I have seen many rescued from the very jaws of death by their use. It may be proper to say that steam is the most important, medicated with salicylic acid, sulphuric and carbolic acids. Mur. quiniæ and chl. potass. in powder to the fauces every hour or two, are of service." He remarks upon the value of mercurials in a variety of morbid conditions, without making special reference to calomel.

FRANK WILMARTH, *Reporter.*

EAST ORANGE, N. J., May 15th, 1876.

GLOUCESTER COUNTY.

To Chairman of Standing Committee, &c.:

The health of our county during th[illegible] r
been up to the ordinary average.
if increased, owes it to epidemic
infants. No marked peculiar
of last summer. Diarrhea

of cholera morbus were not especially frequent or severe. Cholera infantum was mild and manageable. The fevers of our section, viz:—remittents of various types, were of ordinary frequency, and generally amenable to vis naturæ. Typhoid, rare.

Hooping cough has prevailed extensively, being persistent, rather than peculiar; quite fatal to those infants who contracted the disease very early in life; in those of more advanced months, is oftener a source of vexation than of anxiety. The present epidemic is long drawn out; our visitation began many months ago, and even yet, the voice of the hoopist is heard in the land.

We have also gone under the rod of scarlatina. Very different is this present epidemic from that of three years ago. Then there were many cases and few deaths; now, with comparatively few cases, there are very many who die, either of the original violence of the outset, or of the throat complications, or of the nephritic or constitutional sequelæ.

In the neighborhood of Paulsboro, diphtheria has prevailed as an epidemic, for a time very fatally. During the colder months, plain, honest cases of bronchitis, pleuritis or pneumonitis were unusually rare; but in their stead we hear of minor ailments, of which it may be said, that their name is legion. So unusual is the number of these, and so uniform and pronounced their symptoms, that we believe them to constitute the essential expression of a distinct epidemic tendency. Few individuals have escaped. Malais[illegible]ntable d[illegible]sion of strength and sp[illegible] [illegible]ody, particularly [illegible] [illegible]hink oftener in [illegible] [illegible]ggravation

of existing or predisposed disorders; these are the leading characteristics of what the laity term, "this cold that's going around." Free mercurial purgation at the onset, rest, warmth, and a few full doses of quinia, form a general treatment which can be spread over the period occupied by the culmination and decline of the attack.

Since our last report, the Society has lost by death, Dr. Jacob Fisler.

Your questions, particularly the second, have excited considerable interest and attention. In order to determine the opinions of the members upon the subject of mercury; the question was ventilated at large, at our last meeting, á la Pathological Society of London. Following a thesis upon the subject, a general discussion ensued, *magna pars fui*. I append the thesis to this report. Upon the subject of "topical applications in malignant throat diseases," our general sentiment may be thus expressed. If the malignancy displays itself mainly in the throat, topical applications are of decided value; if the malignancy is constitutional, they become of secondary importance. Nitrate of silver, solid and in solution, nitric acid of various dilutions, and acid nitrate of mercury, are the escharotics most in use. Lime water and its steam are occasionally tried.

I have tabulated the drift of the opinions expressed in regard to mercury, as follows:

Number of those who find mercury of use,	15
" " " " " " convenience,	1
" who use mercury as an antiphlogistic,	11
" " " " antiplastic,	5
" who think mercury acts immediately upon th[illegible]	[illegible]
" " " " mediately "	[illegible]

Number	who use it as an antisyphilitic,	6
"	" do not use it as an "	10
"	who use it as an anthelmintic,	12
"	" " purgative,	16
"	" " adjuvant,	16
"	" in malariæmia,	12
"	" avoid its use in anæmia,	12

I find that our Society embraces every extreme of opinion upon the general and special utility of mercury; one extreme being expressed by such sentences as the following, which are literal quotations: "When I don't know just what ails a patient, I give him blue mass, and wait." "It is with me, alpha and omega." "It is my right bower."

The other extreme is represented by the cerebrum of our Society, our secretary. He agreed with the essayist in regarding the essential action of mercury to be a destructive one; but he thought that whether this destructive influence was exerted more upon the diseased than upon healthy structures depended upon their relative strength. That in all diseased conditions, health and disease strove for the mastery. Whenever the one or the other obtained the supremacy, a crisis was reached. That mercury hastens this crisis, this turning-point; but as it may turn either way, either to health restored or to death hastened, it becomes a dangerous medicine in the hands of ignorance.

At this present writing, we are enjoying the comparative immunity from disease which May generally grants us.

C. G. GARRISON, *Reporter.*

SWEDESBORO, May 11, 1876.

THERAPEUTICS OF MERCURY.

BY C. GRANT GARRISON, M. D.

"What are the morbid conditions in which we rely upon Mercury as a therapeutic agent?"

Mercury has been used in every known disease. We now ask, in which of these do we *rely* upon it, as not only really indicated, but as especially curative in its action. A mere enumeration by name of all the various diseases to which, in some part of their course, Mercury is applicable, would be as valueless in its results as it would be tedious in its perusal. So in answering this question we shall not be content with furnishing a mere list of individual diseases, but shall endeavor to establish those great groupings of perverted action—those "morbid conditions," each embracing large numbers of separate and distinct diseases, in which, by almost universal consent, Mercury is used and valued. By "Mercury" in our question is meant that action of any combination into which mercury enters, which we recognize to be essentially the *mercurial* action. For although each individual preparation of mercury is characterized by some effects peculiar to itself, there are certain general medical properties belonging to the whole class. And it is this essential property pertaining to all the combinations of Mercury that we wish to study under the name of "mercurial action." Before proceeding, however, to particularize the "morbid conditions" in which we are disposed to rely upon mercury, we shall state definitely what elements of therapeutic power we attribute to this once-deemed-omnipotent drug. Gleaning from the history of medicine and from the medical world of to-day those views of mercury (whether based upon clinical, empirical or theoretical grounds) which have stood the test of time and of opposition, and subjecting them to a critical analysis, it will be found, we think, that mercurial action has for practical purposes five different modes of expression. To state these clearly, we find in mercury:

1. A power peculiar to mercury, whose mode of action is utterly undetermined—a *specific* action.

2. The power to modify the structural organization of the effused products of inflammation—an *antiplastic* action.

3. The power to cause the breaking down and removal of abnormal growths and deposits—a *resolvent* action.

4. The power to stimulate certain tissues, influence secreting action, and hasten nutritional changes—an *alterative* action.

5. A power which renders it peculiarly efficacious as a purgative—an *evacuant* action.

Now in this enumeration of the five different expressions or therapeutic powers of Mercury, we have ascribed to it several seemingly diverse energies. Let us now see whether there is not some hypothesis which will reduce these apparently manifold powers to some principle more nearly approaching unity. And, to this end, let us say to ourselves, Mercury is a mineral poison, its action is the action of a poison; its therapeutic application is still in the nature of a blood-poison—nothing more. Let us imagine, then, that Mercury so far poisons and perverts the capabilities and powers of the blood as to render it unable to consummate some of its ulterior functions. Let us suppose that it especially attacks the formative power of the blood, that it deteriorates its capacity for structural organization, alters the nutritional element and debilitates the body of the circulating fluid, breaking down its crasis and entailing an aplastic condition of which salivation is in fact the cause and the expression. The cachexia which accompanies this condition proclaims how deeply the blood is altered. Of course there are various degrees to which this blood-poisoning may be carried—from death produceable by a succession of excessive doses, to the slow and gradual introduction which seems to poison the blood, without injuring the man.

Now apply this view of the blood altered and poisoned by Mercury to the explanation of the different therapeutic powers of the drug. Of course we discard in any attempted explanation the so-called "specific" actions of the remedy; they are by title admittedly inexplicable and undetermined. There remain, then, for elucidation the various actions we have called—1. The Antiplastic; 2. The Resolvent; 3. The Alterative; 4. The Evacuant. Applying our hypothesis to each of these in order, we have first to speak of the antiplastic, or that action Mercury which prevents the complete structural organization of the effused products of inflammation.

Inflammations of various tissues tend to the formation of new material called in a general way—products of inflammation. Now as [illegible] material (often dangerous to the bien-etre) is formed from the [illegible] organized in its structure according to the laws governing [illegible] power of the blood. And chief among these laws is

that which decrees that the new formation shall take its character and perfection of structural organization from the condition of the plastic element of the circulating fluid. If the blood, recently surging and over-charged with fever, is to deposit in the eye and upon the valves of the heart lymph possessed of full and perfect power of structural organization, then shall we necessarily and always have the synechiæ of iritis, entailing life-long blindness; the vegetations of endocarditis, with a terrible sequence of valvular disorders ending but in death. But if this perfect formative power of the blood can be, for a time, impaired; if its capability of structural organization can be weakened; if its plastic element can be broken down, then will the resulting exudation be no longer able to constitute a firm barrier to the recuperative energies, but will be imperfect in structure, infirm and amenable to the absorbent powers of the system. But how are we to thus impair the formative principle of the blood, how weaken its power of structural organization and destroy its plasticity? How? Why, *poison* it temporarily—poison it as Mercury poisons it—poison it as experience has taught us to do in order to thus rescue tissues which would else be hopelessly spoiled. Thus would we reduce the first of our therapeutic applications of Mercury to our hypothesis, by showing how the effused products of inflammation fall short to complete structural organization through the poisonous effects of Mercury upon the plastic element of the blood.

The next therapeutic power of Mercury of which we speak is the Resolvent, or that property which pertains to Mercury of removing growths, deposits and formations abnormal in character and situation.

To cause the removal of an already existing growth two things are necessary. 1. To stop increased growth and; 2. To destroy the part already formed. If one body of soldiers were building a fortress overlooking an enemy's camp, that enemy must send two different kinds of forces to overthrow this work—soldiers to prevent further building, and sappers and miners to level and dispose of the part already built. And in the human system, these two lines of soldiery are awaiting our commands. The absorbents are sappers and miners to carry off undesirable abnormalities, provided their material can be softened and broken down and its structure impaired. And we have shown, a moment since, that in Mercury we possess this Antiplastic power. And further, these abnormal growths are composed of individual cells, each growing, living, dying momentarily, and each being

replaced by a new cell depraved and perverted like itself. Now it becomes necessary to so alter the nutrition, the cell formation of this mass, that each successive crop shall have a weaker hold upon life than its immediate predecessors, until the last of this bastard line shall be too enfeebled to transmit its depravity to its offspring. And this we accomplish by the poisoning influence of Mercury upon the cell-forming medium, the blood. Thus would we account for the Absorbent influence of Mercury by showing that the absorbents stimulated by Mercury are able to remove abnormal matter softened and enfeebled by its poisoned source, while new growth becomes continually weaker and weaker as its fountain is being continually contaminated.

The next therapeutic power of Mercury of which we shall speak is the Alterative. This function of Mercury being more composite as to its factors, is more difficult to simplify than the preceding ones. It is that action of Mercury which stimulates absorbents and glandular structure; which produces increased and altered secretion from mucous and visceral glands; which effects nutritional changes and alters the blood in consistence and constitution; which hastens the decay and separation of effete material, and assists what might be termed the moulting process. To produce these effects, it is necessary that the circulating fluid should have increased facility of access to the parts it is to influence. It must visit in augmented quantity the minutest capillaries; it must find its way into the penetralia of glandular structure. The mere *presence* of the blood in unusual quantity and quality in these localities is sufficient to account for the phenomena we are explaining, without claiming for Mercury any act of specific stimulation. For the blood, remember, is not only the natural pabulum, but the natural stimulant, also, of the parts through which it courses. Now the slow and gradual establishment of the poisonous effects of Mercury upon the blood has this power of thinning and diluting it. And this is just what is needed to give it that facility of access to minute arterioles and capillaries which would be denied to a fluid of any greater consistence. Furthermore, this poisonous and debilitating influence, extending to the nerve centres, would have its effect upon the vaso-motor system, causing passive dilatation of arterioles and arterial capillaries, thereby allowing yet freer passage to this poisoned blood. Moreover, blood poisoned by Mercury yields up more readily the materials from which secretions are formed; it allows greater activity in all kinds of changes, and by lessening the tenure of

cell-life, it hastens metamorphosis and gives place and occasion for new growth. And let us remark here that just this condition is often most favorable to the action and potency of many medicines; thus accounting for the clinical fact that many substances will act promptly and kindly in connection with, or after the administration of Mercury, which were inert or even injurious if used alone or prematurely.

Thus by its most gradual and mildest influence upon the blood does Mercury add to its other claims, those of altering the consistence and constitution of the blood, of modifying nutrition, of increasing secretion, of stimulating certain tissues, and of hastening changes which in many chronic diseases prove salutary.

We have, lastly, to speak of Mercury in its action as a purgative. The mere purgative action is, of course, not due to any poisoning influence; but that the *peculiar efficacy* of this action is referable to the hypothesis we are advancing is at least strongly suggested by the following considerations: 1.—We have just shown that Mercury modifies not only the constitution of the blood, but also its consistence; this altered consistence will be attended by an increased tendency to exosmosis—a potent factor. 2.—We know the effect of Mercury upon the secretions which discharge into the intestinal canal. Many imagine that its purgative action is entirely due to these. 3.—It is a clinical fact that, under its drastic doses, the epethilium of the intestines is rapidly thrown off, and thus the straining and restraining function of this protecting membrane is nullified. Now, to a combination of these influences, and perhaps of others that we know not of, we attribute the *peculiar efficacy* of this mineral as a purgative. But each of these factors is reducible to the hypothesis of a poisonous action inherent to Mercury; hence it follows that their sum total is likewise an expression of that same influence, or, in other words, that Mercury owes its peculiar efficacy as an evacuant to the poisonous influence it exerts generally and locally.

To sum up, then, we consider that the prime action of Mercury is that of a *poison to the plastic element of the blood;* and we subdivide this poisonous action under four heads, viz: the Antiplas[illegible] the Resolvent Action, the Alterative Action, and the Eva[illegible] By now determining what diseases fall under each of the [illegible] can justly estimate the domain of Mercury, or, in the lang[illegible] question, "in what morbid conditions we rely upon Merc[illegible] therapeutic agent?"

I. There are many diseases in which the best experience of the medical world agrees that Mercury is our most reliable remedy, but in which we can give no approximation to a satisfactory account of its modus operandi; cannot tell what structures it primarily affects; can trace no sequence of action; can establish no analogy; cannot even guess at the secret of its influence; only know that quietly and unobtrusively it effects amelioration, improvement, cure. Among the morbid conditions thus amenable to mercurial treatment are many of the diseases of infancy, affections of the head, eye and skin, not classifiable on any known pathological basis—worms, many local diseases, but chiefly *syphilis*. Of this class we say that they yield to the specific influence of Mercury, or (to conform to our analysis) to a power peculiar to Mercury, whose mode of action is undetermined—utterly so.

II. In another large class of morbid conditions we rely upon Mercury because of its ability to prevent the complete structural organization of the effused products of inflammation. This we have called the Antiplastic action of Mercury. We see instances of such morbid conditions in endocarditis, pericarditis, pleuritis, and the inflammations of serous membranes generally; in pneumonia, in iritis, in meningitis and cerebritis and chronic inflammatory affections of the brain, in rheumatic inflammations and in some forms of skin diseases. In fine, in any inflammatory condition where we wish to influence the *results* without expecting to exert any influence upon the inflammation *per se*.

III. Again, a third class (often occurring because Mercury was not properly applied in the preceding class) is that where growths, morbid deposits, exudations, and untoward though legitimate results of inflammations, acute and chronic, are to be removed and dissipated; and here we rely upon an action of Mercury we have called the Resolvent. Almost all of the second class may, by neglect, become part of this; also such affections as orchitis, indolent abscesses, tumor of many kinds, and particularly internal tumors and glandular indurations.

IV. The fourth and perhaps largest class of morbid conditions to which we apply Mercury, is that in which we desire, by its peculiar kind of stimulation and powers of hastening metamorphosis of tissue, to effect such changes in the nutrition and function of certain organs that their present secretion and future growth may not partake of existing depravity. To this class belong most of the chronic cases

amenable to Mercury. Cases of hepatitis, gastritis, chronic mesenteric, hepatic, intestinal and cerebral troubles and chronic glandular inflammation. Our fourth class then is that in which we rely upon this Alterative action of Mercury.

V. At the commencement of very many acute diseases, during their course, and upon many other occasions we avail ourselves of the peculiar efficacy of the mercurial purge. It does all, and something more than any other. Our last class, then, of morbid conditions is that in which we rely upon Mercury as an Evacuant.

In answering, then, the question with which we started, we shall divide those morbid conditions in which we rely upon Mercury as a therapeutic agent into five classes, according to the five different expressions of therapeutic power we attribute to the remedy.

The 1st embraces those morbid conditions which do not admit of classification upon any pathological grounds, but in which clinic experience has proved the reliability of Mercury acting by a peculiar, essential and specific power inherent to it.

The 2d embraces those conditions where the effused products of inflammation would tend to firm structural organization in localities and under circumstances detrimental to health.

The 3d class includes all conditions where existing, though undesirable, formations and deposits are to be removed.

The 4th class consists of all those morbid conditions which we conceive to be remediable by effecting gradual alteration in the nutrition and secretion of certain visceral organs.

The 5th class is made up of those many occasions upon which we avail ourselves of the peculiar efficacy of the mercurial purge.

In fine, then, we may conclude that the action of Mercury is either specific as in our 1st class, or poisonous as in the four last; being in one instance *specific* without acting as a poison, in the others being poisonous without acting as a specific.

And now, having opened the question by stating in what morbid conditions we are disposed to rely upon Mercury as a therapeutic agent, and having given in crude outline our theory of its action, we leave the subject to more able discussion; and a subject for discussion Mercury ever has been. It is to the physicia[illegible] "fi[illegible]" is to the political economist. And our theory, [illegible] its action as tantamount to "inflation;" [illegible] the circulating medium, but one which [illegible]

evoking temporary activities as the expense of a healthy circulation; affording relief in emergencies by depreciating the true standard of value. In administering either Mercury or national finance, we should look to a speedy return to a gold basis, and not enter upon a reckless exhibition of either paper or poison, for salivation is panic; and cachexia, universal bankruptcy.

HUDSON COUNTY.

To Chairman of Standing Committee, &c.:

For the sanitary condition of the county during the statistical year ending May 1st, 1876, I have relied to some extent upon the mortuary records, obtained from our County Board of Health, and vital statistics as furnishing confirmatory evidence of one termination of disease, which so many members overlook, when advising the reporter regarding their experience during the year. Diphtheria has prevailed to an unusual extent during all portions of the year. No section of the county has escaped this epidemic. Residents of the most elevated sections, surrounded apparently by the most favorable hygienic circumstances, have suffered alike with the inmate of the tenement house, situated on low ground, and where all the existing conditions to invite disease seemed present. Various degrees of severity have been observed from an attack so slight, and with so little constitutional disturbance, that its presence remained a question *sub judice*, to the ver[illegible] malignant type in which the patient is overpo[illegible] as it were, and all remedies failing, death [illegible] few [illegible] be obtained from the [illegible] most of the latter of

which was certainly diphtheritic), was the accredited cause of death in 17⅞ per cent. of the deaths among all ages and from all causes during the year in this county. The relation of season to mortality, follows the same law as was observed during 1874–5; the greatest fatality, 32 per cent., occurring in the fall; 29 per cent. in winter; 21 per cent. in summer, and 18 per cent. in the spring.

Notwithstanding the vaunted specifics with which our medical literature is filled, faithful trials of all suggested modes of treatment have, as the excessive mortality indicates, been very unsatisfactory, and suggest the question, whether reported recoveries in the majority of cases are due to the treatment adopted, due to some intrinsic tendency we do not understand, or have been errors in the diagnosis of the variously named lesions simulating diphtheria, which are so exceedingly common during the prevalence of this disease.

By common consent, the term "malignant sore throat," is implied as referring to diphtheria and diphtheritic croup, the varied opinions on the treatment of which express the views of such members of the Society as responded to your questions relative to local applications.

Dr. J. H. Vondy finds most benefit from potassii chloras and tinc. ferri. chloridi., and feels that their influence for good, used topically, is considerable.

Dr. J. B. Burdett has used various applications locally, some with benefit, and others doing more harm than good. He considers them only valuable as adjuncts. Of late years he has relied upon potassii chloras., tannic, carbolic, or salicylic acids, chloride of sodium and the tinc. ferri. mur., the latter in preference to all.

Dr. H. Mitchell believes caustic and irritating applications are hurtful, and has no faith in the utility of steam or ice, but thinks from the use of a three or five per cent. solution of carbolic acid, locally applied every hour, diluted if it occasion much smarting, he obtains both antiseptic and anodyne effects.

Dr. A. A. Lutkins has no confidence whatever in the efficacy of local applications.

Dr. J. Craig has used, with marked benefit, locally, the following: tinct. iodini. ʒss., tinc. ferri. mur. ʒi., glycerine, ʒijss.

Dr. J. W. Hunt has watched the disease in both its mild and aggravated forms, and under various plans of treatment in his own and others' hands, and he does not believe he has ever seen a case cured by any treatment, and is not satisfied that any treatment adopted has shortened the disease or caused the result to be more favorable; yet his record of mortality is as favorable as any that has come under his notice. He has used many drugs, including stimulants, but does so no longer; uses potass. chlor. and tinc. ferri mur. only as local disinfectants of offensive products, and has no confidence in quinia; thinks that stimulants sometimes lessen the chances of recovery; uses opium when necessary to relieve pain or promote sleep, and steam if the breathing is embarrassed. Food and plenty of pure air are his great reliances. In a word, mild cases, in his experience, recover without medication, while severe ones will generally run their course irrespective of medicine.

Dr. T. F. Morris uses no local applications, further than the sol. pot. chlor., combined sometimes with the tinc. ferri. mur., given frequently in small doses. He has tried the preparation so highly recommended

for local use by Dr. Lewis Smith of New York, *i. e.*, carbolic acid and the per. sulph. of iron; early use of which produced no marked effect, either in mitigating the severity of the disease, or preventing its extension. He is convinced that as far as medication is concerned, potass. et ferr. are as good as anything.

Dr. J. R. Forman gives frequent doses of the tr. ferri. mur. and potass. chlor. to children, in syrup or glycerine, repeated so as to make the application almost continuous; additionally for adults, using carbolic acid and lime water as a gargle, often in both in form of spray, especially to the nares; thinks the above of value when the membrane is in a nascent condition; of very little use when it distinctly coats the parts, and of no use whatever in bad cases, (septicæmic.)

Personally, I cannot recall where benefit was traceable to a local application, and I could mention several where the result seemed positively injurious. I did, for a time, suppose I was obtaining unusually good effects from alternating doses of the salicylate of iron, iodide of potassium and copaiba, but am now satisfied I was in error, inasmuch as the average results proved about the same as under other methods of treatment. Finally, in reference to this disease, the many diverse views regarding treatment, the uncertainty which follows their execution, as shown by the varied resultant effects following the same procedure in the hands of different practitioners, have fully convinced me that it will run a definite course, but little modified by medicinal treatment, other than sustaining; in a word, that diphtheria is a self-limited disease, and, that independent of those cases in which there is an extension of the membrane into the larynx,

death results from exhaustion. Our attention should be directed almost entirely to this latter condition. Mild local disinfectants are allowable, but tonics and nourishment are indispensable. I am in the habit of using the sulphate of cinchónidia (being much cheaper and just as efficacious as quinia) in conjunction with milk, or cream if it can be procured, raw eggs, alcohol in some form, and if the patient will tolerate it, raw meat; when a repugnance to either is shown, giving them per enema, being sure that they are given often enough to more than supply the necessary nourishment. This I believed to be rational treatment, and I am satisfied shows a result second to none with which I am acquainted. If tracheotomy becomes necessary, it is then especially indicated.

Excluding accidents and still-births, 55 per cent. of the decedents in this county during the year, were under (5) years of age. A comparison of this ratio of mortality with many sections of the United States, as well as European countries, is exceedingly unfavorable to ourselves. Our Society has devoted much time to the solution of this social problem, which we trust will show resultant effects in the immediate future. An efficient Board of Health, vested with the authority to enforce sanitary regulations, could reduce this mortality in a marked degree.

Irregular invasions of disease have been noted, generally attributable to malarial influences, as they soon clear up under generous doses of the cinchonic alkaloids.

Pneumonia, mostly of an asthenic type, was prevalent as usual during the winter. Scarlet fever, generally of a mild form, but in an unusual number of instances, followed by acute desquamative nephritis, was noticed by several practitioners.

Rubeola, of a very severe type in many instances, has been exceedingly prevalent this spring. A lengthened prodromic stage has been in many cases a marked feature, and more frequently than usual the various sequelæ have been observed.

Late in the winter bronchial and intestinal catarrhs kept all of us pretty busy, the former being at one time epidemic in its character. Both resolved equally well under tonics.

During last summer gastro-intestinal lesions were exceedingly prevalent in our midst. The only other contagious forms of disease that have come under my observation, have been variola, pertussis and parotiditis, the former occurring sporadically during the entire year, becoming more common during January, February and March, but at no time approaching an epidemic.

The experience of most of our members has been that the past year has been marked by an unusual amount of sickness.

Your interrogation regarding the use of calomel, remains to be answered. Were my knowledge of this drug to be obtained from the replies I have received in answer to a note sent each member, as requested by you, to obtain the desired information, I would state that no member of the Society of less than fifteen (15) years' experience in the profession, knows any thing concerning such a drug, for all the replies received were from old practitioners. Dr. J. B. Burdett writes: "I do not rely upon calomel as a therapeutical agent in any morbid condition."

Dr. A. A. Lutkins believes it is a remedy of great value in all acute serous inflammatory troubles.

Dr. J. H. Vondy replies that in membra-

true croup, calomel is of great value. In certain malarial cases a large dose of calomel and jalap will materially aid, if not entirely cure; and meeting occasionally with a patient who insists on a bilious condition and insists on a dose of calomel, it is a valuable remedy to the medical attendant.

Dr. T. F. Morris seldom uses calomel, except as a cathartic. Bronchial catarrh in children under four years of age, attended with considerable vascular congestion, is in his experience promptly relieved by the use of small doses of calomel in connection with ipecac and chalk. Equal parts of calomel and precipitated chalk, he considers invaluable for dusting upon inflamed surfaces. Intertrigo, for instance, is promptly relieved and cured when it is applied.

Dr. J. W. Hunt uses it as a cathartic, and believes it is one of the best remedies of its class known to the profession. He never uses it in small doses as he did when he was a younger man.

Dr. J. Craig regards the use of calomel in inflammation of serous membranes as most important; that in the early stages of these affections, given in full doses, it exerts an influence distinct from its purgative affects, allaying local and general irritation, diminishing the frequency and force of the pulse, and lowering the temperature of the body. Administered in small doses, say one or two grains combined with one grain of opium each, one, two, or three hours, dependent on the amount of pain, and continued until ptyalism is produced, the most forms of acute serous inflammations uniformly subside. He has yet to see a case succumb in which this treatment was adopted. It is also useful as a cathartic, and as a stimulant to the secretory function of the liver, also to deplete from the

portal circulation. Finally, as a commencing step in the treatment of many complaints, he prescribes a full dose of calomel when the tongue is furred and there is lassitude, headache, loss of appetite, nausea, etc. Great relief follows its use when these symptoms are present, whatever pathological condition may be their cause.

I append two cases which may prove of interest.

LEONARD J. GORDON, *Reporter.*

JERSEY CITY, May 13, 1875.

THE TREATMENT OF A CASE OF TAPE WORM.

BY CLEMENT C. YOUNG, M. D.

The patient, a young man 19 years of age, a native of the United States, strong and robust in appearance, had apparently enjoyed excellent health up to a short time before consulting me. For a few months previous to this he had passed, at varying intervals, a large quantity of tape-worm, the existence of which he failed to make known, both from a mistaken delicacy and an erroneous idea as to the nature of his affection. As compared with his previous condition, there was noticeable during these later months a deterioration in health and strength, slight nervous symptoms, in the shape of muscular twitchings, resembling choræic manifestations, with a sense of fatigue upon slight exertion, apathy, diarrhœa, and some disturbance of the digestive functions, the appetite however being generally good, though not excessive. The administration of ten grains each of calomel and soda, and afterward an ounce of castor oil, was followed by the evacuation of a large portion of the worm. A short time elapsed when it was again passed, at which time and during its subsequent appearance, various remedies were used. Castor oil and spts. turpentine āā ℥ss, brought about a further expulsion. Kousso was tried, but its nauseant and unpleasant character was such, that the patient refused to take [illegible] sufficient to fairly test its merits. Carbolic acid, [illegible] the oil of male fern came next in order. The [illegible] in two grain doses repeated every hour, wi[illegible] morning upon getting up. At the first [illegible]

taken, several feet of the worm being again passed. About this time—being some months after the commencement of treatment—the patient was troubled with epistaxis, sometimes very profuse, occurring upon the slightest cause—often from no apparent cause whatever—and continuing to such an extent as to occasion alarm, and reduce him to a condition of excessive anæmia. These hemorrhages were coincident with the evacuation of small fragments of the worm, and at first this association seemed to point to a cause aside from mere coincidence; but as the epistaxis finally ceased, although the worm was still voided, I attributed the circumstance to its probably true cause, namely, a deterioration of the general health, and a defibrination of the blood, giving rise to tardy coagulation. He was put upon the tr. ferri. mur., and improved. The carbolic acid treatment was again resorted to, but with no marked success. Sulph. ether was next tried in doses of ʒss., preceded and followed by cathartics, but with no results whatever. The first trial of the male fern, given in ʒss. doses, also preceded and followed by cathartics, was to a certain extent satisfactory, inasmuch as a large quantity of the tape-worm came away, and it was hoped the head also. Owing to the patient being actively engaged in business, and his inability to subject himself to satisfactory treatment, the progress of the case was much retarded, the remedies prescribed being often taken with irregularity, or not carried far enough to fairly test their effect, as well as rendering it impossible to make proper search for the head of the worm, thus necessitating a somewhat empirical treatment. However, symptoms of a nervous character setting in more markedly, the patient's health becoming manifestly impaired, with increased gastric irritability and diarrhœa, I again had resort to the oil of male fern, the trial being more thorough than the first. Before retiring, the patient took a mild cathartic (castor oil and spts. turpentine) which operated during the night. The next morning ol. filix mas. ʒj. was taken at 6 o'clock, the same quantity at 7.30 and again at 8.30 o'clock. At 6 o'clock that evening, a much larger quantity of the worm was evacuated than at any previous time, which upon examination of all that I could obtain, led me to conclude that either the entire worm had been passed, or that only the head remained. (The patient during the administration of the remedy had abstained from food.) Hoping to make matters sure, another dose was given the following morning, after which nothing was seen of the worm for over six months. The patient's health greatly improved,

there were no further symptoms of a morbid nature, and I was just congratulating myself upon a cure being effected, when I received the by no means pleasant information that the worm had again made its appearance.

The above notes were written at a time when a cure was supposed to have been effected; my intention being to show the efficacy of certain remedies which are supposed to operate with fatal effect upon this worm. The efforts of practitioners seldom meet with more stubborn resistance than is afforded in the treatment of certain cases of tape-worm; and although the above brief history has not yet been brought to a successful close by the entire expulsion of the worm, I am still induced to offer it, as showing the reliance that I believe may be placed upon the remedies so far employed. As will be seen from the foregoing, the use of calomel, as well as castor oil and turpentine, caused only a partial expulsion of the tasnia. I believe it will be difficult to obtain the full effects of Kousso, owing to the bulky form in which it must be administered, and its exceedingly unpleasant character; while carbolic acid, if at all effective, must be pushed to such an extent as to render it objectionable. If the same end can be obtained with other agents operating more expeditiously, especially so, if, as many claim, it is also essential for the patient to abstain from food during the attempt to expel or destroy the worm. The trial of sulph. ether gave a totally negative result; while that obtained with the oil of male fern, leads me to conclude that it will prove entirely successful if given under favorable circumstances, and carried sufficiently far.

Traumatic Tetanus.

BY C. O. VIERS, M. D.

Thomas Murphy, aged 27 years, native of Ireland, laborer by occupation, cut his foot while bathing, July 5, 1875. First called to see him two days after receiving injury. On examination found crescent shaped wound, located beneath the external malleolus of right foot; superficial, and about one inch in extent, unhealthy in appearance, with everted edges; surrounding tissues much swollen and inflamed, the patient being unable to bear his weight upon the foot. The trouble yielded to treatment in the course of a few days. He returned

to work July 11. I did not see patient again until Sunday, July 18, thirteen days from the time he had received the injury. He called at my office, complaining that he had taken a heavy cold and could not breathe freely, as he felt as if he had a cord drawn tightly about the chest, and at times a stiffness of the jaws, with a severe pain in the back. He also stated that the trouble was aggravated when he exerted himself.

I ordered him a cathartic, recommended a Russian bath if convenient, to be followed by a Dover's powder and quinine on retiring, and to let me know immediately if the symptoms increased, as I was afraid that he might be developing some serious trouble, (suspecting that it might be the beginning of tetanus). He sent for me in the evening, stating that he felt much worse. On calling, I found trismus and tetanus fully developed, the spasms recurring every few moments. Opisthotanus well marked; no pain referable to recent injury, though the muscles of right side seemed to be more affected during the spasms, than those of the left. Temperature high; pulse 130 per minute. Ordered ice to the spine immediately (according to Dr. Carpenter's mode of treatment), and asafœtida and turpentine enemas, to be repeated every three or four hours. I also gave twenty gr. each of potas. brom. and chloral hydrate, to be repeated every two hours until rest should be obtained, and so on until I should see him again.

July 19, 9 A. M. Patient slept about three hours since I last saw him; had taken three doses of the chloral and potas. bromide; had had two enemas; ice being kept to the occipital and cervical region. Pulse 110; tongue much furred; perspiring freely; spasms recurring once every twenty minutes, and sometimes more frequently, though somewhat modified at times. He cannot speak, as every effort at talking brings on a spasm. Has taken no nourishment since yesterday afternoon.

The treatment to be continued as before—bladders of ice to the spine, and all the milk that he can take. 5 P. M., pulse 115; has lacerated tongue, and keeps an iron spoon handle between the teeth. He has succeeded in taking a quart of milk during the day. Visitors have annoyed him very much, consequently ordered absolute quiet, directing no one but those in attendance to be with him. Ordered 5 gr. doses of quinine every three hours, in connection with the treatment as before Dover's powder to be taken at night.

July 20, 9 A. M. Has slept more during the night, taking a quart

of milk, and some beef tea in the morning. Pulse 110; treatment continued, quinine three times a day. Brandy mixture every two hours in table-spoonful doses. 5 P. M., pulse 112; treatment the same.

July 21. Ask for consultation. Dr. Carpenter saw case with me at 10 A. M.; advised a more thorough application of ice to the spine. Suggests the saturated tinct. of asafœtida with the oil of turpentine, to be used as an enema every two hours. Accordingly I ordered ice in bladders from the occiput to the coccyx, and the enemas as suggested. The other treatment as before—takes plenty of nourishment in the form of milk, beef tea, &c., brandy mixture. 4 P. M. Patient apparently more comfortable; pulse 105.

July 22, 10 A. M. Seems a little delirious this morning; pulse 115; has slept more than usual; the circulation seems more feeble on the right side than on the left, the muscles being quite rigid. The application of ice somewhat neglected; insisted on attendants carrying the orders out strictly. Order brandy mixture given every hour. 5 P. M. Patient seems a little better; delirium continues; treatment the same as before.

July 23. Pulse 100; delirium continues; treatment the same; mutton broth instead of beef tea, for the day.

July 24. Pulse 102; slept more than usual during the night; perspires very freely, and complains of the sudamina, which seems to annoy him very much. Spasms seem to be modified in severity; treatment to be continued. 4 P. M. Patient about the same; has taken three fresh eggs broken in wine, in connection with his other nourishment.

July 25. Patient continues about the same; treatment continued.

July 26 and 27. No appreciable change; treatment the same.

July 28, 9 A. M. Patient not so well this morning. Pulse 120; sweating profusely. He complains of the severity of the enemas, and says the ice wets the bed; accordingly the attendants have neglected both, to which I ascribe the change in his condition. Spasms recur as often as once every half hour, some of them quite severe; complains of severe soreness in dorsal and lumbar region. Ordered potas. brom. and chloral every two hours, as formerly; injections and ice continued. The enemas once every four hours. 5 P. M. Pulse 112; patient somewhat easier; spasms recurring about once an hour, and much lighter. Substitute rubber ice bag for bladder, and change his bed.

I am using injections less frequent, as he complains bitterly of their severity.

July 29. Patient seems to improve slowly. Pulse 99; treatment the same. 5 P. M. Substitute cannabis indica for the chloral and potas. brom.

July 30 and 31. Treatment the same. Patient's condition about the same; perhaps the spasms are a little more frequent.

August 1. Attendants have discontinued the ice and injections. Patient sitting up at window, where they had carried him. Spasms occurring more frequently. I told them that they would surely cause his death, if they did not follow the directions. Called at 2 P. M. Found ice bag dry; spasms recurring every twenty minutes, and sometimes oftener. Dr. Carpenter saw case again with me at 5 P. M., and insisted upon their carrying out the treatment as directed.

Aug. 2, 10 A. M. Patient much better. Ice to spine; treatment the same.

3d, 4th, 5th and 6th, patient continues to improve rapidly. He seems quite rational once more. He feels slight spasms on exertion; pulse ranges between 72 and 90. In connection with his nourishment, he takes the citrate of iron and quinine, cannabis ind. in ½ gr. doses three times a day. Up to August 12, treatment the same. Still continues to improve; can walk with assistance from bed to chair; sits up two or three hours a day.

Aug. 17. Can walk back and forwards across the floor with assistance. Fld. nourishments continued, all solids being positively forbidden. Ice discontinued entirely. No medicines except the tonic taken.

September 1. Is able to walk out. Complains of pain along the spine, and especially in the dorsal region.

Sept. 20. Thinks he is able to return to work; says he feels quite able to do light work. He resumed labor Sept. 25. About the middle of October, he went to California, without settling his drug and doctor's bills, and that is the last I have heard of him.

JERSEY CITY, May, 1876.

HUNTERDON COUNTY.

To Chairman of Standing Committee, &c.:

The health of the County of Hunterdon during the past year seems to have been unusually good. Epidemics there have been, but mildness of type has been their leading feature. In the upper part of the county there has prevailed at various times during the year scarlatina and diphtheria; but in the vicinity of Little York, Dr. Night informs me, there has been almost an absence of epidemics of any kind.

In the region of Quakertown, Dr. M. Abel says: "Diphtheria has prevailed almost the whole year. The type of the ailment has been mild, and from it there have resulted but few deaths." He mentions a case of this malady in which, as a sequela, there occurred paralysis of the muscles of deglutition, and the patient, a boy about 18 years old, died of starvation.

Dr. J. S. Cramer, of Sergeantsville, tells me that in his practice there have been no epidemics except an influenza during the month of March.

Dr. O. H. Sproul, of Stockton, says the people of that village and vicinity have been remarkably free from ailments.

The physicians of Lambertville, T. H. Studdiford and G. H. Larison, tell me that at various times during the whole year they have been called to prescribe for cases of scarlatina and of diphtheria. They say the type of these ailments has not been as grave as is usual in that locality.

Dr. T. H. Studdiford reports his experience with dry cotton as a dressing to fresh wounds, and warmly com-

mends it to the consideration of the members of the profession.

Dr. A. S. Pitinger, of Clover Hill, states that with the exception of the influenza occurring in March, he has seen no epidemics; and that during the year there has been very little sickness in his vicinity.

Dr. George Bartow writes me: "We have had during this winter and spring a sort of epidemic catarrh. The peculiarity seems to be that even the slightest cases are accompanied with an unusual amount of debility; and in the severer affections convalesence has been unusually protracted." Dr. Bartow also states a case of poisoning from tincture of iodine, which he successfully treated with copious drafts of starch and the hypodermic use of morphia. He also mentions a case of poisoning from belladonna successfully treated with morphia.

At Ringoes and in the vicinity of this village, there has been very little sickness since the first of last May, excepting during the months of February and March. During the autumnal months there occurred a few cases of scarlatina anginosa, and a few cases of diphtheria. Although some of them were slow to overcome the force of the disease, yet finally they all recovered. Typhoid enteritis made its appearance here about the first of December. It was of mild type and needed very little medication. Pneumonia prevailed during February. March brought us, as it usually does, influenza. This year it assumed a typhoid character and demanded a sustaining treatment.

So regularly are we troubled in this valley with an ailment of the air-passages at the advent of spring, that I am inclined to add a few remarks concerning its annual occurrence, its symptoms and its probable

causes. Ever since February of 1863 I have observed that as the weather peculiar to March comes on, the people, to an extent greater or less, in proportion as the transition from cold weather to warm is more or less rapid, suffer from sneezing, suffusion of the eyes, loss of taste, pain in the forehead, restlessness, pain in the limbs and a febrile movement. Upon the second or third day, usually a discharge from the nostrils and a cough supervenes. Soon the cough is attended with an expectoration, more or less copious, and the patient becomes convalescent. Usually the mucus membrane lining the air-passages is all that seems, to any extent, to suffer. But in the epidemic which this year became manifest upon the 4th of March, other structures became involved. Along with the usual symptoms were noticeable torpidity of the liver, kidneys and bowels. Considerable delirium attended many cases, and in some there was obstinate constipation. As a sequela, in many cases there occurred dropsy, in others jaundice; while all were slow to regain the gustatory sense. An anodyne and sedative course of treatment has usually answered all demands of this disease. But this spring alteratives, eccritics and tonics have been in much request; and, in many cases, medication has been needed for from fourteen to twenty days. Under my observation no case ran into pneumonia, although many were confined to the bed for twelve days and upwards, and suffered free expectoration and much thoracic pain.

Concerning the annual occurrence of this malady, I have made some observations. There seems to be no fixed time in the spring at which it appears. It seems rather to depend upon the temperature and the condition of the weather. I have observed its occurrence in

the latter part of February, and I have noted its postponement till almost the first of April; but always it makes its appearance at the breaking up of winter and the advent of spring.

A query arises in my mind whether this disease, which I am inclined to call "Vernal Influenza," is not the result of a blood-poisoning generated by breathing an atmosphere infested with some organisms—vegetable or animal—of microscopic dimensions, which are annually called into active life at the ushering in of spring. Perhaps there are organisms adapted to this transition season that go through all their rounds of active life at the time of, or just prior to, the appearance of our epidemic, and then lay dormant the rest of the year. Perhaps they cannot endure colder weather; perhaps they are not suited to a warmer atmosphere, but fully adapted to this transition season. Upon this hypothesis we see that the disease would be likely to be severer as the transition period is longer, since, if the transition season is longer, it would allow them to develop more abundantly, other things being equal, and we would be subjected to the breathing of them for a longer time.

In favor of this view is the fact that those whose dwellings are in the warmest places, are the first to contract the ailment. Sheltered places, and such as are flanked upon the wind-side by hills or woodlands, are the first to show the prevalence of this disease; while bleak north sides and elevated regions, either show it later in the season, or else do not have it at all. I do not think this ailment is confined to this little valley; but perhaps its manifestations are more apparent here than in most places.

C. W. LARISON, *Reporter.*

RINGOES, N. J., May 1st, 1876.

MERCER COUNTY.

To Chairman of Standing Committee, &c. :

The diseases that have been prevalent during the last year, have presented nothing unusual in their nature from those of the previous, with this exception, a slight epidemic of diphtheria in the fall, and a general epidemic of bronchial catarrh, which has just subsided.

The epidemic of diphtheria was at first very malignant in character, carrying off, at times, three or four in some families; but its virulency soon disappeared, and the number of deaths on the whole among those who were attacked, was quite limited. A contagious element was manifested, as a diffusion through a limited district could be traced to one or two centres.

The membrane was developed for the most part in throat and nasal cavities, although there was a fatal case where a patch first formed on the vulva of a young child, where there had been an abrasion of the skin, from a severe fall.

We are unable in Mercer county to get at the rate of mortality, owing to there being no board of vital statistics; and in cases of death, certificates as to the cause are not required.

Local treatment has the endorsement for the most part of the Society, and the sub-sulphate and muriated tinct. of iron have the preference, although chlorinated and other gargles are recommended, together with the use of atomized and other warm vapors.

The general tonic treatment is in all cases
out. The use of disinfectants, and the se
children in a household where ther

together, is also advised, besides strict attention to all hygienic laws.

In regard to bronchial catarrh, it has been widespread in the county, and came on with pain in the head, throat and limbs. The prostration was unusual, respirations difficult, and in some, even of an adult age, there was croupous breathing. The expectoration was slight and in many cases there was a marked tendency towards pneumonia. It was for the most part self-eliminating. There was but little treatment necessary.

Typhoid fever and pneumonia have presented scattered cases. Malarial fevers are on the decrease.

A very animated discussion as to the portability of puerperal fever, occurred in the spring of 1875, among the medical practitioners of this Society, which found its way into the courts. Very extreme views were advanced, but on the whole, the careful use of disinfectants, strict attention to hygienic rules, and great care on the part of the physician, in order to prevent contagion, were all that were required. It was not deemed necessary, as some insisted, that a physician should abstain from practice for months; such a regulation would be impossible to carry out, and not demanded by the contagion.

Scarlet fever has been rather more diffused than usual. Dr. Bodine had fifteen cases under his charge in the Children's Home; his communication is enclosed. The disease has been mild in character, and there were but few deaths.

Dr. Deshler, of Hightstown, states that hooping cough has [illegible] vicinity; that diphther[illegible] fatal. He also [illegible] emit-

tent fever, which were found to be greatly benefited by large doses of quinine, as recommended by Liebermeister in Ziemssen's Cyclopædia. Influenza was general since mid-winter, and nearly all persons were attacked.

The Mercer County Medical Society is in a flourishing condition, and great interest is taken in the debates on the leading medical topics of the day.

H. WALDBURG COLEMAN, *Reporter.*

TRENTON, N. J., May 10th, 1876.

MONSEL'S SOLUTION OF IRON IN DIPHTHERIA.

BY DR. H. WALDBURG COLEMAN.

Without wishing to discuss at length the origin of diphtheria, its mode of development, and the circumstances attending its diffusion in a community, I will briefly refer to these points, and consider its treatment:

I. *Its Origin.*—Like most epidemic diseases, its nature is so subtle as to have as yet escaped our detection. Different theories are advanced, some very seductive, particularly that of the Spore theory, which is very ingenious, but far from being convincing. Diseased tissue affords germinating spots for bacteria to develope in, but they can hardly be looked upon as the primary cause of diphtheria.

Our present knowledge on this subject may be summed up as this: that under peculiar atmospheric conditions an accumulation of morbid material occurs, which material may be presumed to be always present, and at such times any person or persons who are in the vicinity of such a collection, and in fit condition for its action, will contract a specific disease, and become a centre or centres from which it may be diffused to others.

II. *Its Development.*—From a careful study of this e find t
mucus membranes are the channels for its introd
denuded surfaces. The morbific matter excites
mation of a specific character at a definite poi
and putrid exudations are formed, and in th
numbers of organized growths. The system

turbed actions, by passing into a low irritative fever, and if the diseased action continue, morbific matter is absorbed, the glands in the vicinity of the diseased surface swell and becomes engorged, and through them toxic symptoms soon develop.

I think that this can be accepted as the history of the mass of collected cases; although there can be no doubt that under peculiar circumstances, the morbific matter may be so virulent, and the state of the system of the recipient so unusual, that death may occur without any local manifestion. We may, therefore, consider the disease at first localized and afterwards general.

III. *Its Diffusion.*—Its epidemic nature cannot be doubted. That it is contagious the clinical history proves conclusively. The morbific element is found not only in the membranes but in the emanations from the diseased subject.

Treatment.—Adopting the view that the disease is at first localized, and that a series of morbid changes take place before general blood poisoning, it is fair to infer that if we possess a remedy that will destroy the poison, prevent absorption, and expel diseased membranes, or at least change their structure, we can accomplish a cure.

From eight years experience with Monsel's Solution of Iron, and comparing results with other methods of treatment, I think it promises better success than any other remedy yet offered to the profession. The conditions under which it is to be used are these: that the diphtheritic spot is in such a position as to allow the solution to be applied in the manner soon to be described.

When the sub-sulphate of iron, made after the formula in the U. S. Dispensatory, is used in full strength on a diphtheritic patch, located in the fauces, the following effects are observed:

1st. A thickening and toughening of the membrane.

2d. Intense constriction of the mucous membrane behind, separating it from the diphtheritic mass above.

3d. A sensation of strangulation, together, in most cases, with vomiting of the membrane in mass, leaving the throat clear, and the mucous membrane in a condition unfitted for absorption from corrugation of its vessels and lymphatics.

This act of vomiting is of great asssistance to the patients, particularly the young, as it enables them to reject a substance unfitted for digestion, and apt to induce, if swallowed, diarrhœa and other intestinal difficulties.

The manner of applying the solution is of the greatest importance, and requires careful consideration; for with this as with many excellent remedies, everything depends upon a thorough use, and given in proper strength. I generally take a tumbler, and by inverting it, make use of the small concavity in the bottom. Into this the iron is dropped in full strength, and in amount sufficient for one application; to this an equal proportion of water is added if the case is that of a child, for an adult almost full strength is required; then with a camel's hair pencil of large size, the tongue being depressed, and a good view of the throat obtained, the solution is put on the diseased part. Immediately the patient experiences a feeling of suffocation, and is seized with retching and vomiting; the membrane is in most cases then expelled in mass, and the throat cleared. The flow of saliva is increased, as are other secretions in the mouth.

I have often succeeded, after one application only, to get patients to take a quantity of nutrition, when for days they have been unable to swallow, owing to the mechanical obstruction of thickened putrid membranes.

For diphtheria of the mouth, throat, and in fact for all places where the brush can be used, the treatment with iron promises the most flattering results; but in parts where it has from necessity to be greatly diluted, and in those cases where the lymphatics and glands are swollen, showing toxic absorption, and the system impregnated with poison, it is of but little value, and stands on a par with other remedies.

A too frequent use is injurious, and two or three applications in twenty-four hours are sufficient.

In conjunction with the above preparation, the general tonic plan of treatment is to be fully carried out. The disease is epidemic and of an "acute infectious nature." The strictest attention should be paid to the hygienic conditions surrounding the patient, and all excretions, particularly from the mouth, throat and bowels, should be carefully avoided and disinfected. A case occurring in a family where there are other young children, calls for their isolation at once. The use of chlorine should be free in the house, and as much ventilation allowed as the season of the year will permit.

NOTE.—Cases illustrating the effects of the iron were cited in my original article, but have to be here omitted. I quote but one to show the bad result of its too frequent use:

Dec. 14th, 1873.—Was summoned to attend Mr. R———, a merchant living in

H—— street. Found him sitting propped in a chair, complaining of intense suffocation. Wife stated that that afternoon he had complained of sore throat, and having used Monsel's solution a year before, when he had diphtheria, with good results, he had now resorted to it himself, and used it every hour in full strength, at least six or eight times. His throat was literally filled with crusts of iron, and so constricted that the suffering was intense. It was some hours before I could afford him relief.

TRENTON, May, 1876.

COMMUNICATION BY DR. JOSEPH L. BODINE.

In Dr. Richardson's ideal "City of Health," provision is made for work-rooms, apart from the house of those engaged in such industrial callings as tailoring, dressmaking, shoemaking and the like. As illustrating the danger of our present system, he says: "I have myself seen the half-made riding habit that was ultimately to clothe some wealthy damsel, rejoicing in her morning ride, act as the coverlet of a poor tailor's child, stricken with malignant scarlet fever." We have had an example of this mode of communicating the scarlet fever poison in a "Children's Home" in Trenton. The mother of one of the boys, wishing her child to appear well-dressed at the annual public anniversary of the Home, had undertaken to get a new suit of clothes for him. She brought to him a part of the suit, and expressed her regret that the coat was not finished. She said that the person who was making it had not been able to finish it as promised, because there had been scarlet fever in the family. In a few days after the anniversary, this boy who had put on the poisoned garment, was sick with scarlet fever, and the disease spread through the Home until seventeen of the fifty-three children in the institution had been brought under its power. Isolation of the sick from the well was adopted at the earliest time practicable, and was enforced until the disease had disappeared. The epidemic was mild in its form, and the cases all got well without complications or sequelæ. It is gratifying to the medical attendant of the Home to acknowledge the receipt from the lady managers of the institution, of an honorarium or pecuniary acknowledgment for his services during the epidemic. Pecuniary recognition of medical services to a benevolent institution is so rare as to demand mention, when it is made.

TRENTON, N. J., April 20th, 1876.

MIDDLESEX COUNTY.

To Chairman of Standing Committee, &c.:

The diseases which we have been accustomed to meet with have presented themselves without any remarkable increase in number or severity in type, excepting diphtheria and pneumonia, and in some sections of the county a tendency, from local causes, of certain diseases, to run into a typhoid condition. Diphtheria has never, we believe, been so prevalent and of such a malignant type as in the city of New Brunswick and in South Amboy: and we think it owing largely to the neglect of the adoption of proper hygienic or sanitary measures for the prevention and mitigation of disease. During the past five or six months there have been, according to the statements of our undertakers, over 250 deaths from this disease in New Brunswick; and we reckon, from the meagre statistics we have been able to collect, that the mortality has been about 20 per cent.* From consultation with members of our District Society, resident here, the average mortality among their patients has been about 15 per cent., which is a very good record when we consider (as should of course enter into the calculation) the malignant type of the epidemic, and the late period in the disease when the Doctor was called in a large number of the cases.

From the account given by Dr. Treganowan, we

* NOTE.—I do not believe that we would have had more than half that per centage of mortality had the physician been called in each instance at the commencement of the disease. Doubtless many of the cases terminated fatally because of interference with the proper treatment. Three cases in my practice were convalescent, but proved fatal by injudicious dosing by the mother with ipecac and hive syrup to the extent of severe emesis.

judge the record in South Amboy to show about the same ratio; of course on a smaller scale.

From observation in this epidemic, we must come to the conclusion that diphtheria is undoubtedly an infectious disease, but it has not been demonstrated to our satisfaction that it is portable. Several families which have been invaded have lost two to four children, in some instances being all in the family.

The instances were exceedingly rare where children under 18 months have taken the disease, the vast majority having been from 3 to 10 or 12 years, between which ages was also by far the greatest mortality. Adults almost invariably recovered, some of whom were severely attacked. The worst case the reporter met with was that of a man about 35 years of age, in which case the exudation covered the buccal mucous membrane, the soft palate, tonsils and mucous membrane of the pharynx, slightly invading the larynx, so that deglutition was exceedingly difficult and painful, and the voice could not be raised above a whisper. In this case entire recovery has taken place, but the convalescence was exceedingly slow, the "patches" not disappearing till 12 days had elapsed. The patient suffered from partial paralysis of the larynx, but under appropriate treatment it rapidly disappeared. In some cases the patients were apparently recovering, when suddenly the pulse became much more rapid, vomiting ensued, and death resulted in a short time, probably caused by some affection of the vagus.

Dr. Morrogh reports having attended a large number of cases, in a few of which there was great disturbance of nervous centres with resulting paralysis, but which, as in nearly all the cases we have heard of, the paralysis yielded quickly to treatment.

As to treatment, the reporter is convinced and believes it is the opinion generally entertained by our physicians here, that as far as the local manifestation of the disease is concerned, the less interference with the throat the better in the vast majority of cases, except the frequent rinsing or gargling with a mild disinfectant wash. We enter our earnest protest against the removal by violence of the exudation, and especially of the use of nitrate of silver.

Of some of the new remedies suggested during the past year or two, they have not given the satisfactory results in our practice that we had expected from reports of success in other places.

Dr. Baldwin, in an able paper on diphtheria, recently prepared, speaking of remedies, says: "It would be improper to close this enumeration of remedies without reference to salicylic acid, which has been much praised for its almost specific power. That it is a good antiseptic all will admit, but its use in the present epidemic, so far as my experience goes, fails to justify the high encomiums which have been placed upon it abroad."

This, we think, will be abundantly corroborated by most of our physicians, if not all, as our experiences have been alike in the use of this acid. In my own practice I have abandoned it and gone back to the carbolic acid gargle, the use of which has been productive of far better results. This, with tonic treatment, (in which I place sulph. quinia at the head of the list), and a good attention to proper dietetic and hygienic management, has given the most satisfactory results. I have often found at the commencement of treatment a remarkable improvement in both the local and constitutional condition, resulting from a moderate dose of hydrarg. chlor. mite.

Pneumonia prevailed to a considerable extent, especially among children and the aged, during the winter and early spring. More cases than usual terminated fatally among the aged, some very suddenly. Among the children recovery was almost the invariable result. Cholera infantum during the last summer, and rubeola, scarlatina, roseola during fall and this spring. Remittent, intermittent and typhoid fevers have been met with in their usual degree of frequency.

The reports received would seem to indicate less intermittent fever in the localities where it has been most prevalent, *e. g.*, South Amboy, and more prevalence in some places where it has not been so frequently seen, *e. g.*, Dayton.

Dr. Norton reports throat diseases very prevalent in Metuchen and vicinity ; several cases of diphtheria.

Dr. Holmes, Cranberry, reports a number of cases of cholera infantum during the summer. Bilious remittent fever, running into typhoid and typhus; 50 cases reported, most of them occurring within 300 yards of a slaughter house, where were nearly all the fatal cases. Pneumonia, bronchitis and diphtheria during December and January. One case of small-pox, the second attack, the first having occurred 9 years previous. At ninth day the Doctor counted 71 old scars and 65 pustules on face. Never vaccinated.

Dr. Wilson, Monmouth Junction, reports increased number cases intermittent fever. Influenza very prevalent, as also throat diseases, but no diphtheria. Several cases conjunctivitis and a few of scarlatina.

Dr. Slack, Dayton, reports more sickness than usual. Miasmatic fevers of mild type very prevalent. Several cases of ulcerated and membranous sore throat, but no true diphtheria. Pneumonia; influenza, affecting

nearly all the inhabitants, accompanied with high fever, lasting two or three days.

Dr. Treganowan, South Amboy, reports miasmatic diseases less prevalent. Fall and winter, diphtheria prevailed more than ever, of most malignant type. An unusual number of sudden deaths "from what appeared to be lung incompetency." During this spring catarrhal affections attended with bleeding from nose and fauces. Scarlatina now prevailing. Cases of epistaxis and hemorrhage from the throat and lungs have been more frequently met with than usual in various parts of the county, and especially in this city.

Our District Society has been called upon to part with another of our oldest members, Dr. Charles Dunham, who was for several years our Treasurer. The Society gave suitable expression to the feeling of sorrow in the sad providence which removed from our midst one so highly esteemed by us for his professional ability and personal qualities.

D. C. ENGLISH, *Reporter.*

NEW BRUNSWICK, May 13, 1876.

MONMOUTH COUNTY.

To Chairman of Standing Committee, &c.:

The general health of the district for the past year has been remarkably good, with one or two exceptions. Diphtheria of a most malignant type has prevailed at Long Branch and vicinity with great mortality, leaving few families who do not mourn the early departure of some little one, and in some cases it has counted all among its victims. Adults have not escaped its con-

tagion, which there at least is now beyond question. I had hoped to obtain some facts and figures from the resident physicians, concerning the scourge, but my appeal has been in vain.

Dr. Forman, of Freehold, writes: "There has been one-third less sickness than during any year of the last decade, and the death rate has been correspondingly low. The only epidemic has been measles, which has prevailed in every family not protected by previous attack. Diphtheria has prevailed only in a sporadic form, and been of a mild type." Dr. Long of same place makes a similar report. Concerning topical applications in malignant sore-throat, Dr. Forman states further: "In patients over three years of age, affected with diphtheria, I am in the habit of painting the diphtheritic patch at the outset with liq. ferri persulph., and if the membrane re-appear, I sometimes make a second or third application. This usually causes the membrane to peel off, and has a tendency to check the local disease. In addition I use ice and ice-water as a gargle, frequently repeated. I use other applications, but consider local treatment secondary in importance to constitutional remedies." Concerning the therapeutic value of calomel, he replies: "I seldom use it, and then as a cathartic; or, with digitalis and squills, as a diuretic in dropsy." This accords with Dr. Long also.

Dr. Welch, of Keyport, makes a similar report. In addition, he reports a case of hemorrhage from syphilitic ulcer, whereby the coats of the anterior tibial artery had been corroded to that degree the blood burst through, endangering the life of the woman, she losing about four pounds of blood. The ferri per sulp.

first, and ligature afterwards, controlled the hemorrhage.

I have the pleasure of submitting two interesting papers by Dr. Geo. T. Welch, of Keyport, and also two others.

S. H. HUNT.

ENDOCARDITIS AND EMBOLISM PRODUCING PARALYSIS AND GANGRENE.

BY S. H. HUNT, M. D.

The patient, Capt. Wm. Hayners, Oceanport, aged 66 years, was a man weighing in health 225 lbs., 6 feet 1 inch in height, of a nervo-sanguineous temperament. Always enjoyed good health until six years before this last illness, when he had an attack of inflammatory rheumatism, which lasted six weeks; no cardial trouble as a sequel being observed by Dr. Scrivens, the attending physician. Has always been a good liver, using tobacco and stimulants temperately. Retired from business some two years ago, since which time his life has been less active. Has had occasional attacks of dyspnœa for the last year, from over-exertion or exercise, lasting however but a short time.

On Sunday evening, March 21st, 1875, he was engaged in a social conversation with his sons, when he arose from his chair and walked to the stove; returning, he dropped heavily into his chair and had some dyspnœa, which was observed by the family. He talked but little after this, his intellect seeming to be clouded, and neglected to bid his family good-night as was his custom. By great exertion on his own part and a little assistance from his wife, he reached his bed in another part of the house, but was completely exhausted in doing so.

I saw him in the morning for the first time, and found him with partial loss of motion and sensation of the left side, able to use his leg and arm a little; the left corner of the mouth drawn down; tongue very red, and mind acting sluggishly; speech thick, and yet able to articulate indistinctly. By the aid of purgatives, brisk friction of the affected limbs, and gentle use of the battery, the parts soon regained their usual tone, and in five or six days their impairment was not noticeable. The muscles of pharynx and mouth

were also paralyzed. With the restoration of the arm and leg, their use continued impaired during his illness for about ten days. The mind did not act with its wonted quickness, though his reason was unclouded.

On April 1st he complained of intense pain in the right ankle, which on examination was found to be swollen. A return of his former rheumatic trouble was anticipated. His feet were put in warm water, gentle friction was employed, and then bandaged in cotton. On Friday, April 2d, his right foot was very much swollen and was found to be below the normal temperature. No very marked constitutional effects were observed, save great restlessness, which continued for several days. Urine was scanty and loaded with lithates. Temperature 98; tongue very red; pulse 73 and of an intermittent character. The heart, during all his illness thus far, seemed to be embarrassed in its movements, though no valvular trouble could be detected.

April 4th. The foot was much swollen, and large purple spots made their appearance. Several large blisters were noticed on the side of the foot. Patient's symptoms were those of general debility. The small and frequent pulse, dry and coated tongue, denoted an asthenic state of the system, which was met by quinine, Huxsom's tinct., beef tea and milk punch. Dr. Scrivens now saw the case in consultation.

April 5th. The temperature of foot was found to be 60° and very much swollen. The ankle of the left foot was still more swollen and œdematous, attributable in a measure to his posture, as he is unable to lie in bed, and has been for the last five days, but sleeps in an arm-chair. An effort was made to place the foot on a chair, but he could not keep it there, owing to the intense pain that straightening the limb caused.

April 6th. Every phenomena of acute gangrene in the foot was now beyond a question, the limb beyond the ankle being of a scarlet hue, hot, dry and very painful, while there was a mottled discoloration of the foot, and the toes especially had lost all sensation. From April 6th there was an increase of the trouble; still there was no fever until Sunday the 11th, when the temperature was 99½°; pulse 76. The heart was beating feebly and intermittingly, as if there might have been a heart-clot impeding its action.

April 12th. Temperature 99; pulse 92. This condition continued until April 19th (April 18th Dr. Van Buren, of N. Y., saw the case). On the 20th, temperature fell to 98. Thus the vital powers began to

give signs of the great battle that was going on in the affected limb. The diet of the patient was of the most concentrated and nourishing kind, which the patient took freely in connection with his quinine, iron and strych.; tr. digitalis was also given as heart tonic. The limb was enveloped in oakum, carbolic acid and per. mang. potas. alternately used to correct the cadaverous smell consequent upon decomposition. Since the 14th the patient has expressed an unwillingness to get out of bed, and for the last week has lain there. The black discoloration now extends to the ankle, nature having formed a line looking much like demarcation.

This afternoon there is a hectic flush and occasionally a cold sweat upon the forehead. Patient shows a disposition to sleep; is less talkative, and indifferent to what is going on about him. Swelling of left foot subsided soon after going to bed, and is now looking as well as ever, though some pain from pressure of heel.

April 26th. Hectic fever creeps on gradually and stealthily, its invasion marked only by malaise, restlessness and discomfort, which patient is unable to shake off.

The exacerbation is vesperal, coming on at 4 o'clock daily with marked periodicity. Body ordered washed, rubbed and excretions removed promptly. Temperature 100; pulse 85 to 90, and intermitting discoloration shooting up over ankle, beyond supposed limit of demarcation, and increased redness near knee.

April 27th. Delirious during night, wandering in sleep; perspiring freely. From April 27th to June 1st there was a gradual abatement of fever, and a general improvement in condition. Appetite good; bowels moved by an occasional injection; no fever; very little perspiration; nothing but restlessness, that occurred periodically, especially in the evening, added at all to his discomfort. The rhythm of the heart was more normal, with very slight and infrequent intermissions. The pulse was fuller and stronger, and continued at about 80 pulsations per minute. There was noticed, a few times, attacks of dyspnœa, which were very slight in their character, and produced little or no uneasiness. Patient most of the time was cheerful and hopeful, and enjoyed his food with a relish. The line of separation occurred two inches above the ankle, and the ulcerative process under the limb progressed favorably, showing every sign of extending around the limb. A small spot, about the size of a quarter, which showed itself about six weeks since, on the *left* heel, has proved to be

unmistakably gangrenous, extending to the depth of one inch. This came from pressure, and seems to have resolved itself into an ugly, indolent, gangrenous ulcer, making but little progress towards sloughing.

From June 1st to June 16th there was the same condition of affairs as the month previous, only a general improvement apparent in his condition. On Wednesday evening the patient was attacked with labored breathing, marked dyspnœa, pallid features, profuse perspiration, frequent and fluttering pulse, and cold extremities. This condition lasted for two hours, when the patient sank quietly and without a struggle to sleep. His mind was clear, and he conversed with his family to the last.

The history of this case is interesting. There can be but little doubt that these troubles were the sequel of his illness six years prior to this one, when he was suffering from inflammatory rheumatism. Dr. Fuller, who is authority on Heart Diseases, says: "Endocarditis is unaccompanied (not unfrequently) by symptoms calculated to direct attention to the seat of mischief, and would escape detection altogether if recourse were not had to the stethoscope. The symptoms are characterized by sudden collapse, with pulmonary obstruction or cerebral disturbance. The patient becomes suddenly faint, and struggles for breath; the countenance is anxious, face pale and livid, pulse rises to 140 and even more, and is weak and irregular both in force and rhythm. The surface is cold and covered with a clammy perspiration, and is accompanied by more or less paralysis. These symptoms are connected with the rapid formation of enormous fibrinous deposits on the valves of the heart, causing great obstruction to the circulation or with the detachment or disintegration of fibrinous deposits. The most formidable of these symptoms are consequent on the detachment of fibrinous deposits from the valves of the heart, which are then carried by the circulation into the smaller vessels, and cause obstruction of the arterial circulation." The case now reported at length had all of the symptoms cited by Dr. Fuller. The gangrene of left foot was attributed to an obstruction of the arterial circulation. His sudden death, at a time when he promised speedy recovery, was also attributed to the detachment of a heart-clot, or embolism. Statistics and history of other cases sustain the treatment in this—*never to amputate* where there exists such heart complications, as more recover from non-interference than by amputation. No post-mortem was obtained.

EATONTOWN, May, 1876.

Medullary Cancer in Mediastinum.

BY DR. S. H. HUNT.

Was called to see Mr. James Reed, aged 32, on Sept. 4th, 1875, who was visiting his mother. Learned that he had been sick for about one year, off and on. In his last sickness stated that his Doctor said he had "inflammation of the lungs." Remembered being thrown on a rail fence by a runaway horse, which incapacitated him for several days. Has had pain in breast ever since, more or less severe. Found patient sitting in chair, head leaning forward on window, gasping for air. Dyspnœa increased until he had one of the most desperate struggles for breath I have ever witnessed. Pulse was small and frequent. Eyes protruding and staring; countenance anxious and woe-begone. Skin was clammy, with a cold perspiration from the fatigue produced by the respiratory efforts. His beseeching look for relief from his intense and unceasing suffering, haunt me yet. Face, arms and legs were swollen and purple from the deficient oxygenation. His misery was intense and indescribable. This condition of things continued for twelve days, until Sept. 16, despite all remedies, with with very slight remissions; at which times nature seemed to have exhausted her energies in combating the disease, but would rally again with desperation to renew the conflict, which increased with the few days he lingered. The temperature never exceeded 100°. These were the symptoms presented.

A physical examination revealed the following: there was an enlargement of the left side, a widening and bulging out of the intercostal space, and an absence of respiratory movement. The heart was displaced several inches to the right, and the apex beat was noticed one inch beyond the right nipple. There was a fullness noticed below the ribs, and viscera pressed downward. This gave to the abdomen a distended and bloated appearance. There was a complete absence of vocal fremitus, and dullness over the whole affected side, before and behind. No respiratory murmur could be detected, and but little bronchial respiration. No cancerous cachexia was present. That there was effusion in the pleural cavity, did not admit of a doubt, but there was more to bewilder and confuse. From the time I saw him there was universal dullness, and this for one thing led to

the suspicion that there was a cancerous growth. And yet the case was obscure. I learned from his immediate friends that he was of a cancerous stock, and that there was a decided hereditary predisposition. Since his death, I have traced the family history up as hereafter stated, which is of unusual interest.

A post-mortem was obtained, after much opposition, which set at rest all doubt. An incision was made by my student, F. Parsons, from the top of sternum to the symphisis pubis, which fully exposed all the viscera. The sternum and ribs were carefully dissected, and by a cartilage knife the ribs divided mid-way; when, on raising it, the pleural cavity was found distended, with serous effusion. Attached to the inner surface of the sternum, was located a foreign growth, which, on examination, proved to be a medullary cancer, weighing over four pounds. This consisted of several nodules, which cut like fibro-cartilage, but connected with these was a morbid product of almost every variety of consistency. Much of it was soft, white and brain-like, breaking up to the touch like brain matter. It appeared as if melted lard had been poured into the anterior, posterior and middle mediastinum, and then cooled. The left lung was pressed back against the posterior wall by the pleural effusion. How so large a cancerous mass could be developed, and yet there be an absence of cancerous cachexia, I cannot understand. The microscope fully confirmed what was so apparent. The walls of the heart, which were also examined and found hypertrophied, seemed to contain cysts of the same material, varying from a millet seed to a large pea. A division of its wall showed the same material in its substance. The kidneys presented a like appearance, and were the finest specimen of large encysted kidneys I have ever seen. Many of the cysts seemed to contain only an albuminous fluid, while others contained a fatty substance; not a few being as large as a hickory-nut.

Paracentesis would have prolonged his suffering, but given only temporary relief. This case is reported only for its pathological interest and family history. His grandfather, Aaron Reed, or rather his wife, had five boys and seven girls; of these, *three* boys, John A., Aaron and Jonathan, have died from cancer. Dr. Vought attended Aaron, and Dr. Thomason attended John and Jonathan. *Four of their children* (and grand-children of Aaron) have also died of the same disease—Daniel, son of Jonathan; Joseph, son of John; Emeline, daughter of Jonathan, and James, son of Aaron, whose case is herein so fully de-

tailed. There is a large number of grand-children living yet, whose ages range from twenty to forty, and should any of them ever come under your supervision with an obscurity of symptoms, with this history before you, you may remember, "By their *fruits* ye shall know them."

EATONTOWN, May, 1876.

THE MICROSCOPE IN MEDICAL JURISPRUDENCE.

BY D. M'LEAN FORMAN, M. D.

During the recent trial in our County Courts of Mary Ganley, for the murder of her husband, a club was offered in evidence. Upon this club were blood-stains and a small tuft of short black and white hair. By the prosecution it was claimed that that club was the instrument with which the injuries on the head (which were the cause of death) were inflicted, and that the blood was human blood, and that the hair was human hair. By the defence it was claimed that the blood was the blood of a fowl, which might have easily got on the club at the wood-pile, where a few days previous to the homicide, a number of chickens had been killed, and that the tuft of hair was not hair, but black and white wool which had been carded in the house a few days previous to the man's death, and might have been swept out and adhered to the club while wet with chicken's blood.

As the testimony upon the nature of the stains and hair upon this club was considered important in its bearings on the case, I was asked by the prosecuting attorney to determine their character by scientific tests.

Upon making an examination of the club, a crack was opened and from it a few scales of dried blood were scraped. A small scale the size of a grain of sand, was placed upon a glass slide and over it a thin glass cover was pressed with sufficient force to reduce the scale to powder. The slide was then placed on the stage of the microscope and accurately focused under a one-twelfth of an inch immersion lens, the magnifying power of which is about seven hundred and fifty diameters. A drop of clear water was then allowed to insinuate itself between the two slips of glass. In a few minutes the powder absorbed the water, and by adding a few drops more, hundreds of globules were distinguished from the mass, and floated out clearly into view

Some of these globules shriveled and rolled, but many of them were circular and without a nucleus, thus showing conclusively that the blood was animal blood and not that of a fowl. In order to verify the results obtained by this examination, some of the scales of blood taken from the same crack were placed in a test-tube and macerated over night in a solution of sulphate of potash. Upon subjecting the dark colored fluid obtained by the maceration to a microscopical investigation, the circular globules were again detected.

Upon making a further and close inspection of the club, three fragments of hair from a half an inch to an inch in length were found entirely distinct in their location from the tuft of hair before mentioned. Upon placing these hairs under a quarter-inch objective they were distinctly shown to be human hairs, and one of them had the roots and the hair follicle in which it grew attached, thus showing that it had been pulled from the head. A few hairs having been removed from "the tuft" and subjected to examination, were found to be cat's hair and not wool, as was claimed by the defence.

The frequency with which we as medical men are called upon to testify as experts in courts of justice, and the frequency with which in these days the microscope is used as a means of determining the guilt or innocence of the accused, leads me to call attention for a few moments to its uses in the investigation of crime, and to the position it occupies in medical jurisprudence.

Many interesting cases might be cited to prove its value in recognizing blood-stains upon weapons used or clothing worn during the infliction of murderous wounds; but a few will serve for illustration, and for that purpose I have selected cases with which most of you are probably familiar, in some of their details at least.

About a year ago in the adjoining county of Middlesex, a man by the name of Sullivan was tried for the murder of a farmer, by the name of Talmage. In this instance, no one saw the deed committed, but circumstantial evidence pointed to the man Sullivan as the murderer. He was arrested, and on his clothing dark stains were found. These stained garments, together with a club found near the place where the murder was committed, were given to Prof. Vandyke, of Rutgers College, for analysis. Prof. Vandyke removed the stains and submitted them to microscopical examination, and at the trial testified that they were produced by human blood. During the trial it was proved by the defence, that the blood on the garments was the

result of a wound in the prisoner's arm, received in an affray previous to the murder, but the blood on the club could not be so easily accounted for. The prisoner was convicted and hung.

A few months ago (at the same time that Mary Ganley was being tried in our courts) a man by the name of Reubenstein was tried in Brooklyn, for the murder of Sara Alexander.

During the trial, Prof. Eaton, a distinguished microscopist, testified that he had examined stains found on the boots of the prisoner, and found them to be blood. That in the dirt on his boots, he had discovered a small chip about the tenth of an inch ($\frac{1}{10}$ of an inch) long, which he submitted to microscopical examination, and found to be corn husk, and that he also found a fragment of woolen yarn which was similar in texture to that in a shawl which was worn by the girl at the time of the murder. As the murder was committed in a corn field, the presence of corn husk in the dirt on his boots was very important testimony against the accused, who was convicted of the murder and sentenced to be hung.

A few years ago there occurred in Norwich, England, the following case: (Vid. Wharton and Stille's Medical Jurisprudence). "A female child, nine years old, was found lying on the ground, in a small plantation, quite dead, with a large and deep gash in the throat. Suspicion fell upon the mother of the murdered girl, who, upon being taken into custody, behaved with the utmost coolness, and admitted having taken her child to the plantation where the body was found, whence the child was lost by getting separated from her while in quest of flowers. Upon being searched, there was found in the woman's possession a large and sharp knife, which was at once subjected to minute and careful examination. Nothing, however, was found upon it, with the exception of a fine piece of hair adhering to the handle, so exceedingly small as to be scarcely visible. The examination being conducted in presence of the prisoner, and the officer remarking; "Here is a bit of fur or hair upon the handle of your knife," the woman immediately replied, "Yes, I dare say there is, and very likely some stains of blood, for as I came home, I found a rabbit caught in a snare, and cut its throat with the knife." The knife was sent to London, and with the particles of hair, subjected to a microscopic examination. No trace of blood could at first be detected upon the weapon, which appeared to have been washed; but upon separating the horn handle from its iron lining, it was found that between the two, a fluid had

penetrated, which proved to be blood—certainly not the blood of a rabbit, but bearing every resemblance to that of the human body. The hair was then submitted to an examination. Without knowing any of the facts of the case, the microscopist immediately declared the hair to be that of a squirrel. Now around the neck of the child, at the time the murder, was a tippet, over which the knife, by whomso ever held, must have glided; and this tippet was squirrel's fur. The woman was convicted, and while awaiting execution, confessed her crime."

Nearly twenty years ago, Dr. Burdell of New York was murdered in his room. In searching the house after the murder, for a clue to the perpetrator, a bloody towel was found in the closet of one the gentlemen boarders. Upon being unable to account for it he was arrested. Soon after the arrest, a lady living in the house, went to the police and told the following story: She said that she was menstruating at the time of the murder, and in going up stairs her napkin fell off. The house being full of people, and she being embarrassed at her misfortune, rushed into the first open door that presented itself, to readjust the necessary garment. Being interrupted before she could do so, she threw the napkin in the closet, intending to return for it at a more favorable opportunity. Before she could secure it, it was found by the police, and, as before stated, the owner of the room was arrested. In order to test the truth of the story, the towel was submitted to a microscopist for examination, and the blood on it was found to be freely mingled with epithelium from the uterus, thus clearly showing it to be the menstrual blood. Upon this testimony the gentleman was released from custody.

In Taylor's Medical Jurisprudence a case is cited where some cotton fibres detected by the microscope on the edge of a razor, showed that the weapon had cut through the strings of a cotton night cap, in giving a fatal wound on the neck; and finally another case is cited in which an assassin was detected and convicted partly upon the indicatory evidence furnished by a lock of hair remaining firmly grasped in the hand of the murdered man. The hair under the microscope resembled, in all its physical character, that of the prisoner; the individual hairs were found to be some of them broken, others torn out by the root, and others cut, and on the prisoner's head a bare place was found to which they corresponded.

The cases I have cited clearly illustrate some of the methods in

which the microscope has been applied in the investigation of crime.

In testifying upon the witness-stand with reference to blood stains, we are certain to be asked what kind of blood have you discovered? In answer we can say positively whether it is derived from the mammalia, or from birds, reptiles or fish; but can we go further and say whether it be animal or human blood?

Dr. Richardson, microscopist to the Pennsylvania Hospital, in an article on "the value of high powers in the diagnosis of blood stains," (published in the American Journal of Medical Sciences, July, 1874,) affirms the possibility of distinguishing the blood of man from that of certain domestic animals, (citing that of the pig, ox, red deer, cat, horse, sheep and goat,) by the difference in the size of the globules.

Dr. Woodward, of the Army Medical Museum, in Washington, than whom I believe there is no better authority upon this subject, in a paper published in the American Journal of Medical Sciences, for January, 1875, reviews Dr. Richardson's article, and says in substance, that as the subject is one that from time to time becomes of great importance in criminal cases, justice no less than scientific accuracy, demands that the microscopist, when employed as an expert, shall not pretend to a certainty which he does not possess. That although an experienced microscopist is not likely to be misled, yet that there are many physicians who work with the microscope more or less, to whom a partial statement of facts on such a subject as this is peculiarly dangerous. If Dr. Richardson's statement of the case is true, it is not the whole truth, for there are certain animals, among them the dog, whose red corpuscles are so nearly identical in size with those of human blood that they can not be distinguished with any power of the microscope even in fresh blood, much less in dried stains; consequently, it is never in the power of the microscopist to affirm truthfully on the strength of a microscopic investigation that a given stain is positively composed of human blood and could not have been derived from the blood of any animal but man.

Mr. Gulliver, a distinguished English microscopist, says "that in monkeys, seals, otters and dogs, the corpuscles are about as large as in man."

In Wharton and Stille's Medical Jurisprudence, (Vol. 2, Part 2—1873,) the characteristics by which the blood of mammals is distinguished from that of birds, reptiles and fishes having been described, it is thus stated: "The globules in all the mammalia (with the excep-

tion of the camelidæ) are so nearly alike in size and other characters to those of man, that practically no distinction can be made." "Thus, the blood of an ox or sheep cannot by the microscope be, for medico-legal application, distinguished from that of a human being, for although the globules are somewhat smaller than those of human blood, yet the size of the globule in the human blood varies according to whether it is fresh or dried, and the difference between its size in man and animals is too slight to be made a point in evidence in cases where such momentous consequences may depend upon the decision."

With reference to the time after the effusion of blood at which the globules can be recognized, Dr. Taylor says "he has obtained clear evidence of their existence in, and separation from, a minute fragment of dry blood which had been kept in a dried state for a period of three years." "M. Robin detected them in spots from eight to twelve years old. But such certainty cannot be expected if the spots have been washed, or if while fresh, they have undergone putrefaction."

An additional proof of the presence of blood is derived from certain microscopical crystals which it contains. As these crystals can be obtained from all kinds of blood they are of value only in proving that the fluid or stain is blood.

The spectrum microscope has also been made use of in the examination of blood, and with it there seems to be no great difficulty in recognizing its presence or absence, but its source can not be determined by this means.

Such I believe is the present position of the microscope in medico-legal cases; and it seems to me that medical men, who at any time may be called upon as experts to testify in our courts of justice, should be familiar with its true position, lest society should run more risks from the scientific expert than from the criminal he is called upon to convict.

FREEHOLD, May, 1876.

MEMBRANOUS ENTERITIS.

BY GEO. T. WELCH, M. D.

It would seem the human system, compassing such small extent, and brooded over for ages by medical philosophers, should some time ago have yielded up its secrets to the sages. But whether it is that the anatomy passing through certain cycles bears with it germs that

appear and disappear, develop at one time, and at another seem to pass away, certain it is its etiology is never long to be depended upon. Diseases of the same nomenclature suddenly assume new forms, and demand new modes of treatment. Weapons of our art, laid upon the shelf by the past generation, are taken down again by this, and those bequeathed to us we somehow find useless in the battle against disease, and throw them with the lumber and dust of a past age. Mercury and the lancet, now some years abandoned to reproach, begin to be championed forth again, and their merits discussed in public places. Dr. Hartt, of New York, read a remarkable paper on the "Decadence of Medicine," before one of the Medical Societies of that city, during the past winter, and strongly urged the return to old modes of treatment in vogue half a century ago; and at the late meeting of the American Medical Association, Dr. Samuel D. Gross, in a paper read before that assembly, took strong grounds in advocacy of blood-letting in the early stages of inflammatory diseases, and was received with great applause.

So it is; what we think fast ground gives way beneath our feet, but it is not that science crumbles, it is that our little day is too short for us to comprehend the laws of change that govern it. It is only when we compile the experience and observations of all the generations, that fleeting time can compass the length of art. As Goethe says:

> "Vain is it that *our* science sweeps the skies—
> Each, after all, learns only what he can;
> Who grasps the moment as it flies,
> He is the real man."

But it may be argued of this generation of medical scientists, that the causes of disease are more closely scrutinized and sought for, than at any time before in the history of men. Symptoms are classified, and differences more clearly apprehended, confusion is avoided, and still the good work goes on.

A disease that Dr. DaCosta designates as membranous enteritis, has been, till within the last decade, confounded with dyspepsia, diarrhœa, dysentery, and even the presence of intestinal worms. It is characterized, as I have found it in my own experience, by soreness and tenderness in the region of the small intestine, with paroxysms of intense neuralgic pain, and the passage of strips of membrane from the rectum, after which there is comparative comfort for a few days,

when the neuralgia returns, and the same process is again completed, and so on.

It is of this disease I wish to treat, as briefly as possible, and illustrate with the clinical history of a most complicated case in my own practice.

So far as I know, Dr. DaCosta is the first writer who has dealt with this affection as a separate disease. Others have considered it as a freak of some inflammatory process, or at the best, as the excessive symptom of some other complaint. Kaempf speaks of it as infarctus; Good as diarrhea tubularis; Todd as follicular colonic dyspepsia; Cruvélhier and Laboulbéne as pseudo-membranous enteritis; Powell as painful affection of the intestinal canal; Whitehead and Eustace Smith as mucous disease; Clemens as intestinal croup; Balléux as dysentery, and Lipsius as worms.

Anatomical Character.—Membranous enteritis has been so recently studied, that its anatomical character can only be surmised, not positively declared; since, though an agonizing affection, it has a tendency to become chronic, and death from it alone must be very rare.

The small intestine is composed of three coats, serous, muscular and mucous. The muscular coat consists of two layers, the outer arranged longitudinally, the inner disposed transversely, which makes it of a dense and unyielding texture; over this lies the mucous coat, the surface of which is greatly extended by being formed in transverse folds. A statement of this fact will readily admit the conclusion that in any inflammatory condition of the enteric canal, a serous effusion occurring between the mucous and muscular coats would detach the latter from the former, and if the inflammation be long continued, death of the mucous coat in portions must occur, and these be cast off by the natural movements of the bowels. Then a raw surface left, if indeed a new mucous coat be not already in process of formation, and sufficiently produced to cover the muscular coat from observation. For, in post-mortem examinations of the intestine affected with acute enteritis, the peyerian and solitary glands have always been found unaffected, and these should act as nuclei for the new mucous cells to gather about; besides, in detachment of strips of some length, process of repair must begin at once, here as well as in the fauces when diphtheritic membrane is cast off. I only offer this as my opinion after a

careful study of the clinical history from observation, as I have seen none recorded.

Clinical History.—The local symptoms, as I have before observed, are pain and soreness in the region of the small intestine, attended with painful exacerbations, and discharge of membranous strips, occurring at intervals of longer or shorter duration; generally four weeks. The clinical history of a case I have now under treatment, will illustrate the disease in all of its phases.

Miss L. is a lady of more than ordinary intelligence, fitted by nature to shine in society, and as it is, the favorite of a large circle of friends and acquaintances, though unfortunate circumstances of disease have confined her to her room for nearly seventeen years. Hers has been a long and melancholy history of hope deferred, and of old age descending upon a life cheated of its youth and the wholesome pleasures of its kind.

To begin at the beginning, her menses were suppressed upon their first appearance by injudicious sea-bathing, and did not appear again for ten months. Afterwards they were never regular, appearing at intervals of five or six weeks, and longer. Frequently they would be suppressed for months. Intense pain characterized their appearance. Leucorrhœa was a prominent symptom for several years.

In 1835, there appears to have been an inflammatory condition of several of the important organs. Her eyes were affected to such a degree that sight was misery; her throat became affected, I would judge from her account, with sub-acute laryngitis, which has continued ever since; the liver was congested, and the kidneys gave off large deposits of uric acid. About this time she began to feel soreness and pain of the bowels, but no membranes were ejected until 1843.

A liberal course of mercury and depletion by blood-letting, was begun by her medical attendant, and not given over, though the majority of the symptoms persisted and her health grew worse. During 1836-7 she was ptyalized three times, and the pain in her bowels was increased, and she suffered much from neuralgia.

In 1843 she was again placed under heroic treatment, by another physician, and was ptyalized twice during this year; but this campaign left her worse off than before, as the pains in the abdomen culminated in the discharge of mucous strips or membranes from the rectum. This was looked upon as a form of dysentery, and treated as such. But the membranous enteritis persisted, and pieces of mem-

brane continued to be discharged at intervals of about four weeks. The pain at such times was well nigh intolerable, though a comparative ease of a few days would intervene between the paroxysms.

In 1861 she was again placed under the influence of mercury, when she took to her bed entirely, and has scarcely ever left it more than a few hours at a time, since. About this time she passed a strip of mucous, tubular in form, twenty inches in length, she says, and it appears her physician confirmed it. This was after an unusually severe paroxysm. When these strips were longest, the attacks of neuralgia were prolonged for several days, and small pieces of mucous kept passing from the bowels, until the long strips of membrane were ejected, when the pains remitted.

There never seemed to be any association between the menstrual difficulties and these colicky pains, as they scarcely ever occurred together; and if they did, the abdominal pain did not seem to be heightened. Her physicians do not appear to have ever examined or to have taken much note of these membranous discharges.

During all those years she appears to have run the gauntlet between long files of all the medicines of the dispensatory, and received a malicious stroke from every one of them, until she became the despair and reproach of the profession on her side of the county. But for all that, though in almost daily agony, she has outlived some ten or eleven of her medical advisers, and holds them as saints in her calendar; such devotion does long-suffering breed!

I first saw this lady in February, 1874, in consultation with Dr. Herbert. He was treating her for retroversion of the uterus. There was a marked retroversion with retro-lateroflexion of the uterus. She was unable to walk more than a few steps, and that with painful effort. There was such exquisite tenderness of the mucous coat of the vagina, that she could not endure the presence of a pessary, however carefully adjusted, for more than six or twelve hours, when its impress would be left in purple. However, by the frequent use of a uterine replacer, followed by carbonized cotton pledgets, she grew much better of the retroversion, so that a sound would enter the uterus without being bent. About this time she was attacked with vaginitis of such an angry character, that uterine treatment had to be suspended. Upon inquiry I found she had been subject to such attacks before, when no uterine treatment was used or thought of.

She became my patient in March of that year, her physician remov-

ing to San Domingo. Pretty soon after I took charge, she began to complain of great pain in the abdomen, when I, being unacquainted with much of her previous history, suspected the uterine treatment to be the cause, and left it off at once, prescribing hydrate of chloral as an anodyne, but she did not get much better until the periodical discharge of the membrane, though I was not then acquainted with the reason.

In April there was another attack, exceeding in violence any she had had for several months. I found it necessary to use the hypodermic syringe almost daily for a while, to control the paroxysms. These ceased gradually, to begin again in June, and so it has been almost monthly, until within the last three or four months, when I perceive the attacks occur at longer intervals, with pain less acute and membranous discharges slighter. How long even this partial good fortune will last I will not venture an opinion.

I first begun to examine these pieces of membrane last summer, and in October and November obtained a cast thirteen inches in length. I concluded, from tests and examinations I made, that they were from the mucous coat of the small intestine, as well from their size as that Miss L. always complained of most pain and soreness in the viscera below and beneath the stomach. It was not until I read an article in the January number of the American Journal of Medical Sciences, on Membranous Enteritis, by Dr. Findley, that I begun to feel satisfied with my conclusions, or the treatment I was pursuing. Last week I obtained from Philadelphia, Dr. DaCosta's monograph, on the same subject, wherein I found the only plain account of this dreadful disease that I have yet seen in print.

There are a few other symptoms in Miss L.'s case I wish to detail, before entering into an analysis of the few cases on record. She has always sick stomach for two or three days before these membranous casts are excluded. No blood passes at any time. She has long been troubled with dyspepsia and want of appetite. Coldness of the surface every morning, seldom any fever. Occasionally the urine deposits great quantities of uric acid. If she loses flesh during an attack she soon regains it. Is very nervous, but never hysterical.

From idiosyncrasy cannot endure any anodynes but chloral hydrate, and fluid ext. of Indian hemp. Is naturally disposed to be constipated, but dejections easily occur upon use of teaspoonful doses of Rochelle salts.

An analysis of eleven cases gives the following results :

Author.	Age.	Initial.	Male.	Female.	Mar.	Single.	Duration	Cause	Cured.	Womb Disease.	Treatment.
Da Costa	31	S.		1		1	11 years.	Irritation of womb.		Prolapsus. Ulceration of cervix.	
"	20	M. G.		1		1	14 "		1		Nitrate of Sil.
"			1				31 "				
"	8	M. C.									
"	50		1				5 mo.	Conges. liv.	Died.		
"	35	Mrs N		1	1		2 years.				Prep. of Iron.
"					1						
Findley	40	H. J.		1	1		2 "	Mercury.	Cured	Ulc. os and cerv. ut.	Arsenic.
"	43	D. G.		1	1		13 mo.	Uter. irri.	"	Dysmennorrhœa.	"
"	21	E. W.		1	1		9 "		"		Liq. fer. iodi.
Welch	25	L.		1		1	32 years.	Mercury.		Retroversion and latero flex	

Pathology.—Dr. Hare, pathological chemist at the Pa. hospital, has analyzed several specimens. They do not dissolve in water. Dissolved in caustic potassa, they give a faint precipitate by addition of either acetic or tannic acid. I cannot follow his analysis at length, but his conclusions are that most of the casts he examined were composed of mucus; one or two contained a trace of albumen; they contained no fibrine.

Causation.—In two of the cases I have analyzed, mercury seemed to have been the controlling cause of the difficulty. Grantham considered the disease caused invariably by mercury, conjoined with the constant use of aperients. A writer in the London Lancet, Oct. 15, 1869, asking for information, speaks of two cases which he attributes to the same cause. Two of the cases I have analyzed appeared to have been caused by transmitted irritation from the womb, and one from congestion of the liver. But DaCosta thinks constitutional defect is the cause in a majority of cases.

Diagnosis.—The diagnosis may be generally considered easy, if the symptoms are borne in mind and the dejections examined. Tenderderness about the epigastrium, neuralgic paroxysms, passage of mucous strips unattended with blood, comparative comfort for several days or weeks. No other disease presents all these characteristics.

Prognosis.—The prognosis is unfavorable so far as complete recovery is concerned; though a person may be ill of this disease, suffering a thousand tortures, and live to a comparative old age. Recent cases, properly appreciated and treated, are more likely to recover. Where the disease is misunderstood it is likely to run into the chronic stage and persist for years, or during the lifetime of the patient. Nor does

it always yield when early seen, to modes of treatment successful, or partially so, in other cases, but recurs again and again until it seems impossible to eradicate it.

Treatment.—During the exacerbation, anodynes, and powerful ones, are called for. In the case of Miss W. I have used hypodermic injections of morphine and atropia, one-fourth of a grain of one, and the ninety-sixth of a grain of the other, thrice in one hour. Deep injections of chloroform may be tried with advantage. Counter-irritation in some form constantly is advisable. Tonics and alteratives best suit the necessities of the case, though they must be continued for a long time, and as persistently as the disease. Arsenic is recommended by Findley, and appears to have been curative in two of his cases. The iodide of iron has the credit in the third. DaCosta cured one case in which diarrhœa was a constant symptom, by the use of the nitrate of silver; and the different preparations of iron were effectual in another. Gentian, the per-chloride of iron, cod-liver oil, the acids, nux vomica, copaiba, pitch-pills, tar, bismuth, opium, bromide of potassium, and electricity have all been highly recommended and discarded, and tried again. Nutritious diet, and moderate exercise when possible, should always be insisted upon. And whosoever cures a case should straightway report it, for the lists will be long open.

KEYPORT, May 17th, 1875.

THE RELATIONSHIP BETWEEN TYPHUS FEVER AND CEREBRO-SPINAL MENINGITIS.

BY GEO. T. WELCH.

A case of sporadic cerebro-spinal meningitis, now under my care, presenting very singularly marked features, has set me to thinking of the common relationship of eruptive fevers, but more particularly of cerebro-spinal meningitis and typhus fever.

My patient, Henry Walling, a lad of fourteen years, was attacked, Sept. 4th, by what an itinerant quack, who was called in, diagnosed as "a cold," but concluded was the "lockjaw," four days afterward, when he was discharged. I found the lad with all the symptoms of sporadic cerebro-spinal meningitis aggravated to an extreme degree. His surroundings were vile and unfortunate and there was everything to provoke a speedy dissolution. The room was small, ill-ventilated,

and reeking with odors. The bed on which he lay was foul and narrow, and the walls grimy with the steam of many indigestible dinners and late carousal with gossips. The very water they drank, I learned, was infected with the decay of woody fibre, if not worse. The third day after my visit, in a spasm of confidence, I was shown the parietal bones of the skeleton of an infant that had been found under the floor. Death had left his signet with the house! The tonic spasms with opisthotonos, and the spinal pain, yielded their severity to large doses of chloral and quinine.

On the second day of my attendance, and the sixth of the disease, lumbricoid worms began to be expelled from the intestines, and so continued to be, at intervals, until thirteen had been passed. The characteristic eruption did not appear until the tenth day of the attack, when the body and extremities were covered with dull purple spots, which remained in this condition until last Thursday, Sept. 30th, when they assumed a bright crimson appearance, were raised, assumed crescentic forms in places, became confluent on the face, chest, about the genital organs and on the feet and legs. On Friday the face and eyelids and the feet became œdematous. On Sunday morning the bright redness of the eruption had departed in a great measure, and this (Monday) morning, except in places, all was a dull purple and sunken to the skin level.

During all this while there was no increase of temperature or nervous excitement, nor any fresh internal lesion to be discovered.

I wish to call attention to the fact that this abnormal increase of the eruption was raised above the surrounding surface, was uninfluenced by pressure, was confluent in situations, crescentic at times, in other places round and red petechiæ.

Searching for authority in such unusual occurrence, I received but scanty reward for my pains. Da Costa says only in extremely rare instances is the rash rose-colored. Tourdes states that a rose-colored papular eruption, like that in typhoid fever, is occasionally observed. Flint believes the petechiæ due to extravasation of hematin, and, if so, the color is likely to be crimson if the symptoms be sufficiently grave.

A communication in the "Transactions of the N. J. Med. Soc. for 1873," from a medical gentleman in Gloucester County, whose name does not occur among the list of members, details a series of cases of what he is pleased to call "cerebro-spinal meningitis accompanying measles." In the same family he had patients with cerebro-spinal

meningitis covered with an eruption resembling varicella, that disappeared in three days; afterward an eruption appearing on the same patients resembling measles that began to recede two days afterward. Whether the petechiæ wholly disappeared or persisted in modified form during the disease he does not say; but while these notes are not complete, they are unique. Says one of them: "Eupheme and Adaline about the same. Eupheme's head further back, and spine and extremities bad." He says his treatment consisted of every item of the materia medica that suggested itself to him, and he even thought of using the battery on Eupheme, but she judiciously died before the experiment could be made. As the eruption of varicella ordinarily awaits the fifth day before dessication, and as the eruption of rubeola disappears on the fourth day, I conclude the doctor's cases were complicated with neither of these eruptions, but that the petechiæ he observed were modified forms of the usual eruption of cerebro-spinal meningitis, and to some extent resembled that in my own case. Dr. Wood states the petechiæ often resemble those of typhoid fever, and these Louis defines to be of a lenticular rose-colored character. And that brings me back again to Flint and Tourdes. An excursion into polite literature gives me the following, from Boccaccio's introduction to his Decameron: "In the year of our Lord 1348, there happened at Florence, the finest city in all Italy, a most terrible plague; which, whether owing to the influence of the planets, or whether it was sent from God as a just punishment for our sins, had broken out some years before in the Levant, and after passing from place to place, and making incredible havoc all the way, had now reached the West. Unlike what had been seen in the East, where bleeding from the nose is the fatal prognostic, here there appeared certain tumors in the groin or under the armpits; and afterwards purple spots in most parts of the body; in some cases large and but few in number, in others smaller but more numerous—both sorts the usual messengers of death."

In 1872, some farmers in the neighborhood of Wyoming, Delaware, where I was then practicing, sent an agent to Sweden, who induced the emigration of about eighty of the peasantry to the home of his associates. Upon their arrival they were all housed in a large barrack until they could be parcelled out to their future employers. As low and filthy a set of beings could not be found outside of the ancient splendor of Europe. A few days after their arrival a disease broke out among them, characterized by fever and eruption, that rapidly

proved fatal. As a medical man was likely to be in constant service for awhile, like a prudent corporation they sought the cheapest. An illegal practitioner was called in, who puzzled himself over the cases for two or three days, and ended by calling them small-pox, and treated them as such; but the mortality persisted, and the farmers were fain to call in regular physicians, who found the cases to be of typhus fever. I did not see any of the patients, but Drs. Jump, of Dover, and Sharp, of Camden, said the petechiæ resembled those of aggravated cerebro-spinal meningitis, while the fever was of a typhus nature, and most of the cases recovered in fourteen days under the new treatment, though some lingered for weeks.

That there was a common origin here for differing phases of the same disease, as there is again and again in other cases, is difficult to be set aside. The same disease in the same person, as in my case, will present the phases of two or three recognized diseases, and seen by different physicians at different times would go far toward deceiving the very elect. That the plague described by Boccaccio, which he does at great length, was a modified form of typhus, I verily believe; and that typhus and cerebro-spinal miningitis may be due to the same cause, I as readily consent. Both occur among the ill-fed, the ill-clad, the ill-lodged, in a proportion under the same circumstances. Murchison, in his treatise on Continued Fevers, gives abundant instances of typhus fever occurring in jails, hospitals, workhouses, ships, and unventilated tenement houses crammed with occupants. In 1841, Flint reported four cases occurring in the Erie County almshouse, in a small and crowded ward, heated and unventilated. The epidemic of cerebro-spinal meningitis occurring in the South of France, in 1837, attacked preferably the garrisoned towns. An epidemic of it in Ireland raged fearfully among the miserable tenantry of the low and boggy districts. Bondin has identified this disease, as it occurred in France, with typhus fever, from the most ordinary forms of which it differs only in the seat of lesion. He believes it contagious, since he could in no other way account for its tendency to attack crowded depots and garrisons. Says Wood: "I have little doubt that wherever it occurs as an epidemic, presenting grave characters, it is in fact a form of malignant fever, belonging to the group of typhus diseases, and bearing a close analogy in general character to the typhus epidemic which prevailed in the United States in 1812, and for years afterward." Says Da Costa: "While fully admitting that we can not,

from the evidence in our possession, as yet decide with certainty on spotted fever being merely modified typhus, and developed by the same poison, a larger experience with the disease than I had in 1864, when I first wrote upon it, makes me adhere still more decidedly to the opinion that it is not an inflammation but a fever of a typhus kind, kindred, to say the least, to typhus fever.

In a note appended to the page I have quoted from, the same author states that the blood rapidly deteriorates in cerebro-spinal meningitis. In the autopsy of a child, who died in twenty-four hours, he found the blood diffluent and black; in an adult patient, sick but two days, he detected blowing sounds in the heart, evidently of blood origin. And he adds "that the poisoned blood unquestionably gives rise to many of the nervous symptoms, and it is upon the blood and the nervous centres the poison mainly acts. In this respect the malady is very like typhus fever."

The subjoined table shows the similarities and dissimilarities of the anatomical lèsions:

Cerebro-Spinal Meningitis.	Typhus Fever.
Serous effusion, and sometimes purulent liquid found in the pleural and pericardial cavities, in the joints, and in the tunica vaginalis.	Heart often flabby and softened.
Deteriorated condition of the blood.	Blood dark and fluid.
Spleen enlarged.	Spleen enlarged.
Peyer's glands and follicles of Brunner abnormally distinct.	Peyerian glands more distinct than usual, having a "shaven beard appearance."
Absence of lymph and pus, and all inflammatory product in a certain proportion of cases.	Congestion and effusion not uncommon, but unattended with lymph.
In some cases cerebral meningitis only.	Cerebral congestion not uncommon.
Fatty degeneration of the kidneys and liver.	Kidneys are apt to be congested; sometimes enlarged, and convoluted tubes may be filled with desquamated epithelium.
In majority of cases surface of brain and spinal cord covered with exudation of lymph, chiefly beneath the arachnoid membrane and extending into the sluice between the convolutions.	In 1847-8 Prof. Alonzo Clark observed appearances denoting meningitis. Effusion of serum into the ventricles of the brain, the subarachnoid space, and the arachnoid cavity.

Thus it will be seen how nearly alike are the anatomical lesions of these diseases, and where one outvies the remains of the other. What is it but the fatal opulence of a more enterprising phase of the same disease?

KEYPORT, Oct. 4th, 1875.

MORRIS COUNTY.

To Chairman of Standing Committee, &c.:

With a view to eliciting a response from every member, I have made an experiment which has been so successfully inaugurated, that I am led to believe that it is a step on the way to a method, which, if thorougly adopted by the other District Societies, cannot fail to make our sanitary reports more complete than they have heretofore proved to be. Under appropriate headings I arranged a series of questions to be answered. These were printed on letter paper with ruled blank spaces under each question for the reply. On the first of April a "blank" was sent to each member with instructions to "fill it out and return to me before the 15th inst." About half of the blanks were used and returned within the time specified, and in the week that followed many more came. This gave me a brief history of the diseases that occurred in different parts of the county, with many very interesting facts in relation to the causes, pathology, treatment, death-rate, etc., thus proving the possibility of a communication from a majority of the members, and that too in a systematic form, which facilitates somewhat the work of the reporter. The cost of printing the blanks is but small, and even this could be greatly reduced by omitting the dates and having them made in quantities sufficient for several years.

Of the diseases incident to the seasons, there was a marked increase, with a corresponding increase of mortality through the hot season and during the months of February and March. The spring, fall and early winter, were generally healthy. We have been visited by most of the so-called contagious diseases of childhood, which have usually been of a very mild type. In three localities only, Rockaway, Boonton and Middle Valley, was the death-rate thereby materially altered. In each of these places, during the fall, winter or spring, diphtheria prevailed as an epidemic. In the vicinity of Rockaway there were probably one hundred and fifty cases; about twelve per cent. proved fatal. At Middle Valley there were, perhaps, forty cases. Under a particular plan of treatment there were no deaths; while the percentage reported from a different method of medication is quite large. In another place we will attempt to account for the difference in results. At Boonton there were about thirty-five cases, of which fully twenty per cent. proved fatal. Aside from sporadic cases of diphtheria, a few are reported from Pompton, Morristown, Mendham and Dover.

Scarlatina of a mild type has occurred in Morristown, Parsippany, Boonton and Pompton. In the latter place and the country north of it, it was quite plentiful.

A few cases of pertussis are reported from every part of the county except Morristown. It appears that this pleasant little city was especially afflicted with an epidemic of hooping-cough in the year preceding this, so there are left fewer subjects who do not possess an immunity from the disease.

Parotiditis is reported from Mine Hill, Dover, Mend-

ham, Morristown and Rockaway. In the practice of Dr. Ayers, at the latter place, metastasis to the testicles was of frequent occurrence. In the case of a female the mammæ and generative organs were the seat of secondary trouble. The breasts were swollen and painful, with severe aching pain through the pelvis and external organs. Dr. Cummins, of Dover, also records a number of cases wherein the testes became affected. An epidemic of roseola which commenced at Stanhope, Succasunna and Flanders in the north, and western part of the county in the spring of '74, slowly migrated east by south, reaching Morristown several months later, where it continued to prevail for a considerable time during the past year. This rare, yet interesting affection, was characterized by scarlet red rash, with or without eruption, with a good deal of febrile disturbance. The peculiar sore throat of scarlatina, and the pathognomonic cough of measles were almost invariably wanting. Not any of the cases which came to my notice were accompanied or followed by any of the complications or sequelæ so common with measles and scarlatina; hence, a distinct and separate disease—conjunctivitis—which was quite prevalent in Morristown, appeared to assume the peculiarities of a contagious disease.

Our county has been unusually exempt from variolous disease. Dr. Cooper, of Parsippany, reported a case of varioloid, and Dr. Ryerson, of Boonton, one of variola; both recovered. Rubeola or measles has prevailed to more or less extent in every part of the county except Rockaway, Dover, Port Oram, Mine Hill and Succasunna. These places are very near each other. A circle with a radius of four miles will include them all. This district is thickly populated,

and within its limits are fifteen practicing physicians. The very interesting fact in connection with this subject is, that during the fall, winter and spring of '71 and '72, this district was visited by an epidemic of hemorrhagic measles, "rubeola nigra," "black measles," of a malignant type; very many cases proving fatal. The sweep was so thorough and clean, that we have since had only sporadic cases. For the past year not a single case is reported within this district. It would seem that not only the extreme prevalence, but the severe form of the disease, has had something to do with the comparative immunity we appear to have possessed from it for the past four years.

During the summer and fall, intermittent fevers were very abundant at Pompton and Middle Valley. At the latter place they were more prevalent in the immediate vicinity of the recent excavations for the Longwood Valley railroad. Very many of the cases assumed a typhoid character. Intermittents were also quite prevalent at Succasunna and Parsippany, but very scarce at Mine Hill, Port Oram, Rockaway, Morristown and Boonton. At the latter place other diseases have shown a strong tendency to periodicity. This phase is described as unusual for that locality. They generally yielded to anti-periodic doses of quinine.

During the hot season dysentery was very abundant at Parsippany and Mine Hill. Succasunna, Rockaway, Boonton and Dover were favored with about the usual amount; while at Middle Valley, Mendham, Morristown and Pompton it was less frequent than in former years. Cholera infantum was plentiful in Parsippany, Mine Hill, Succasunna and Middle Valley. Dr. Farrow, of the latter place, has met with r

cases than in any year previous. With this marked increase of cholera infantum, he says there has been a corresponding decrease in the amount of dysentery.

Cholera morbus has been plentiful in the northern central part of the county, particularly among the miners in the iron mining localities. In the village and vicinity of Rockaway it is estimated that there were not less than one hundred and twenty-five cases, of which three or four proved fatal. A large proportion of the cases were among foreigners of the laboring classes. This disease has generally been much more abundant in the mining localities where the populace is largely composed of English and Irish. An extensive personal acquaintance with this class of people, and the disease in question, has convinced me that the change of climate is a predisposing, while the change in diet is the exciting cause. It is certainly less frequent among the thoroughly acclimatized, and still more scarce with the staid Americans. Generally, though not always, can the disease be traced to the ingestion of large or small quantities of green vegetables or unripe fruit. I have repeatedly seen the patient vomit a meal which remained undigested, although eaten many hours before. A large per cent. of the patients retire to bed in usual health; some time during the night the patient is awakened by severe pain in the bowels, which soon becomes excruciating. Vomiting and purging now begin and often continue until the contents of both stomach and bowels are ejected. After this the pain gradually subsides, and in a few cases would probably cease without treatment. Cramps in the legs, arms and back, often occur when the abdominal pain begins to abate. Fortunately this apparently dangerous, yet seldom fatal disease, is a

self-limited one, and one for which we have a ready antidote in the use of morphine. If called to a patient before vomiting occurs, or while the stomach is yet in an unsettled condition, I invariably give morphine hypodermically. The pain quickly ceases and the vomiting and purging also. This has been most successfully followed with opium or calomel in small doses; occasionally alkalies and stimulants are given. I have met with not less than ninety (90) cases in the past three years, of which not one has proved fatal. Dr. Ayers reports very satisfactory results from the use of aromatic spts. of ammonia and other alkalies, with bismuth and opium. The Doctor seldom resorts to sub-cutaneous injections of morphine in this disease.

An epidemic of influenza or catarrh prevailed throughout the western part of the county during the winter and spring. At Mendham, where it was most abundant, it attacked both the old and young; being especially severe with the aged and those possessing a low degree of vitality. Other lung troubles were unusually plentiful at Middle Valley, Mendham, Parsippany, Boonton, Rockaway and Pompton, and comparatively scarce in other localities. At Morristown, during the winter and spring, simple bronchitis was rather in excess of former seasons. Dr. Barker thus writes of it: "The coryza and cough have been generally moderate, while the febrile movement and malaise have been marked, and the debility often extreme." The Doctor believes "that epidemics this character are essentially and primarily
I have based my treatment on this hypothe
and Dover's powder, and a careful attention
alimentation, and often stimulants have se
most good." Dr. Romondt, of Pompton, a

satisfactory results from the free use of quinine in bronchitis. The comparative frequency of intermittent and remittent fevers during the winter and spring months has been an object of note with physicians in different parts of the county. One physician accounts for this excess by "the open winter and very little snow to cover the decaying vegetation." It has appeared to me that the season was so warm that the poison failed to "freeze up." The history of malaria has certainly proved that with the frost and cold weather this class of diseases grow exceeding scarce, and that a very cold season is often a perfect blessing to the chronic sufferer.

Simple non-malignant throat troubles were quite abundant in Dover during the spring. Dr. Pierson has kindly furnished me with the mortuary returns for Morristown. They are as follows: total number of deaths from April 1st, '75, to April 1st, '76, 151; from April 1st, '74, to April 1st, '75, 138. The increase of the past over the preceding year is owing to the unusual number of deaths during the months of February and March. The other seasons were characterized by a moderately low degree of mortality. I have been unable to procure an authentic report from any other place. There has been throughout the county about the usual amount of sickness, with a proportionate death-rate.

Therapeutics.—The treatment adopted by Dr. Levi Farrow, of Middle Valley, in the epidemic of diphtheria, which then prevailed, was briefly this: "Cold water and ice to the throat externally; frequent carbolyzed lime water inhalations; chlorate potassa for patients who could gargle. The most severe cases were kept in a room filled with the vapor of boiling

hot water; they also almost constantly breathed from a pitcher containing slacking lime, strongly impregnated with carbolic acid. Caustics and strong astringents were not used locally. Internally, tinct. of sesqui. chloride of iron and chlorate of potassa, quinine, sulphate of soda, and systematic alimentation and stimulation. Out of twenty unmistakable cases, five or six of this number, involving the larynx and nares, not one proved fatal. With hot applications and drinks, and opposite treatment, a neighboring practitioner lost one out of three." In view of its supposed action, Dr. Romondt has made use of belladona as a prophylactic against scarlatina. The result was unsatisfactory in every instance.

Dr. Barker thus writes of salicylic acid: "I use it in all contagious and infectious diseases; and for nearly two years have used it as a prophylactic in them all. In no instance has it seemed to fail. In other words, when its use has been persisted in, there has never been a second case of either diphtheria, scarlatina or measles. In a recent instance an unprotected girl took care of a sister who had scarlatina, and she escaped even a sore throat."

In all inflammatory throat troubles Dr. Owen speaks highly of the frequent local application of salycilic acid of the following strength: a drachm of the acid to three ounces of glycerine.

Dr. Levi Farrow has used an infusion of eucalyptus in ulcerated sore throat, with good results. He considers sulphite of soda an adm[illegible] remedy in fevers, cholera infantum and cond[illegible] and bowels characterized b[illegible] lence, from indigestion.

In commenting on the alk[illegible]

tism, Dr. Carpenter says that he has found that the urine can be rendered alkaline more quickly by the use of liquor ammonia than by any of the "fixed" alkalies.

Dr. Cummins has relied on the sulphate of cinchonidia as an anti-spasmodic and tonic, almost to the exclusion of sulphate of quinine.

With Dr. Condict chloral hydrate is a favorite remedy as an anti-spasmodic, hypnotic and nervine.

I have used salycilic acid and the salycilate of soda as a disinfectant in almost all surgical dressings for the past year. It is equal to carbolic acid, and has not the disgusting odor which makes that remedy so very repulsive. I have also used it in most throat troubles, either alone or in combination with chlorate of potassa; in stomatitis, nasal catarrh, and for vaginal injections. In combination with three parts of sulphite of soda, it is soluble in fifty parts of cold water. A saturated solution possesses very strong disinfectant properties. While it is an excellent antiseptic, its imperfect solubility and the difficulty of concentration will render it inapplicable to some of the uses to which carbolic acid is applied. I have also used Croton chloral hydrate in neuralgia, with imperfect success.

Topical remedies are used by most of our physicians in the treatment of malignant sore throat, and are generally thought to be valuable adjuvants. Almost every means of local application, from the fashionable spray producer to the rough sponge swab, are used in this county. The following are the chief remedies [illegible]d: watery vapor of slacking lime, solution of chlo[illegible] of potass[illegible] mixture of the sesqui-chloride of i[illegible] liq[illegible] salycilate of soda, tannic [illegible] lime water, spirits of

camphor, carbolic acid, permanganate of potassa, tincture of iodine and nitrate of silver. There is a decided choice for unirritating remedies that possess strong antiseptic properties. Nitrate of silver and other caustics are used with greater caution and doubt as to their efficacy.

About one-third of our physicians use calomel as a simple cathartic. One of our leading Doctors, a man long in practice, almost invariably produces a calomel purge in beginning the treatment of almost all of the acute inflammations. He also uses it in engorgement of the liver, in the early stages of scarlatina, diphtheria, and bilious and remittent fevers. A few of our number give it in small doses in combination with other remedies in the treatment of cholera morbus, cholera infantum and other gastro-intestinal derangements. The only morbid conditions in which any of our physicians strictly rely upon calomel, are certain stages of syphilis, engorgement and torpidity of the liver, and as a local application in abrasions of the cornea. A large proportion of the physicians in this county seldom use calomel for any purpose, while a few never administer it.

P. A. HARRIS, *Reporter.*

DOVER, May 15th, 1876.

UNUNITED FRACTURE OF THE TIBIA, SUCCESSFULLY TREATED BY EXSECTION AFTER FAILURE TO GET BONY UNION BY DRILLING.

BY P. A. HARRIS, M. D.

On the 7th of May, 1875, Samuel Pascor, a healthy Cornish miner, æt. 28, by direct violence sustained a compound fracture of the tibia and fibula, at a point just above the junction of the lower with the middle third. Four hours after the injury, patient was anæsthetized,

the bones reduced, and a plaster of Paris dressing applied, including the foot and knee. A large fenestra was cut, at a point corresponding with the wound on the inner anterior aspect of the leg. Through this, the wound was dressed, and the pus absorbed by a carbolized sponge which was kept on the wound. For two weeks the pus poured from it in large quantities. The patient complained of but slight pain in the limb. Slept well at night without anodynes, and took a good generous diet.

On the 19th of May, the first bandage was removed and a new one applied. We then discovered a small opening on the outer anterior aspect of the leg, with a sinus leading to the fracture. This, as well as the wound, continued to discharge for several weeks.

On the 19th of June, the second dressing was removed and a new one applied. We allowed this to remain on until the 8th of July, nine weeks after the injury. An examination then convinced me that the fibula was united, but the tibia very imperfectly. Lifting the limb by the foot, caused the leg to bend considerable at the point of fracture. The opposing ends of the tibia could not be moved on each other, and traction sufficient to draw the patient along on the bed, failed to show the slightest separation of the fragments. There was but slight discharge from the wound. The sinus had closed, and probing through the wound gave no signs of detached or necrosed bone.

Regarding it as a case of delayed union, Drs. Hulshizer, Condict and Riches were asked to see it with me. My diagnosis was confirmed, and a new plaster bandage ordered. This was applied on the day following.

In a few days this dressing was split open, removed, and the leg thoroughly washed; after which it was sprung on again and held in place by a few turns of the roller. From this time the splint was removed daily, the leg well cleansed and the cast re-applied.

August 15th, finding the tibia no stronger, I directed the patient to commence bearing weight on the limb, with a view of exciting irritation and hastening recovery—the leg at the same time being well supported by a substantial plaster bandage. This plan of treatment was continued until the 16th of September, when it appeared as far from recovery as on the 8th of July, ten weeks previous.

I then proposed cutting down at the point of fracture, and remove, if possible, any cause which might be acting against recovery. The

patient became frightened and desired to enter the hospital. He accordingly gained admission into Bellevue Hospital, New York, on the 21st of September. He was immediately subjected to the drilling operation, by which the tibia was bored at five distinct points in the vicinity of the fracture. On the 7th of November he was discharged from the hospital. I then examined the leg and found it no stronger than on the 8th of July, four months previous. I waited one month longer to be certain the drilling process had failed, and on the 7th of December decided to operate as I had proposed three months previous, by cutting down to the seat of trouble. With the assistance of Drs. Hulshizer and Condict, I made a free longitudinal incision over the tibia. The opposing ends of the tibia were found united by a dense white substance, which had the appearance of, and was, doubtless, fibro-cartilage. This, together with very small pieces of necrosed bone, was removed by a very narrow bone gouge. The incision was closed by sutures and adhesive plaster, and the limb supported by two lateral splints of sole leather. The incision healed kindly, and ceased to discharge after the third week.

On the 7th of January the bone was firmly united, and did not bend as before when the leg was lifted by the foot.

On the 1st of February patient could bear his whole weight on this leg without the slightest deviation at the point of fracture.

At the time of this writing, April 1st, 1876, he walks quite well, over rough ground, unaided. There is no shortening; no deformity.

If the opposing ends of a fractured bone are brought in apposition and retained there, it is rare indeed that we fail to get bony union, even if the fracture be compound. That failure is possible, however, and occasionally occurs in healthy subjects and under the best surgical management, has been proved repeatedly. Failure has followed the treatment by all of the popular methods, and in the hands of many of our best surgeons. It has occurred in instances (particularly simple fractures) more difficult to account for than the one in question. Let us review the conditions necessary for the successful management of a broken bone, that no one may thoughtlessly use this case as an argument against the use of plaster of Paris in the treatment of fractured leg. All treatment is divided into *physical* and *constitutional* management:

1st. *To reduce the fracture and maintain it in place.*

2d. *To keep the vital forces up to par.*

There are three causes for the motion and displacement of a broken bone—Voluntary and Involuntary Muscular Contraction, Gravitation, and Interference. An appliance which will most successfully overcome all these forces, with the least pain and discomfort to the patient, is the one to select.

There is no doubt that muscular rest can best be secured by light equable pressure exerted over the muscles acted upon. In my opinion there is no appliance which so thoroughly accomplishes this, and at the same time so completely overcomes the other forces, as one or other of the so-called immovable dressings. Bandages saturated with liquid starch, or silicate of lime, or plaster of Paris, applied to the limb and allowed to harden, form a cast, and so constitute an immovable dressing. It may be split open, however, removed and re-applied without materially impairing its usefulness; hence they are often termed "'movable-immovable dressings." These dressings take the form of the limb to which they are applied, fitting it in all its contour. If properly made, as by one skilled in their use, they not only keep the bones immovably fixed in one position, but by increasing the area at every point which serves for counter-extension, lessen the liability to sloughing, and are more comfortable to the patient than any other form of appliance.

In the past three years of private practice, I have treated with marked success (except the case in question) fractures at different points of the arm, forearm, thigh and leg. Some of these were compound; three very severely lacerated.

In lieu of these facts, who could ascribe this failure to the form of splint employed?—particularly since this method of treating fractured leg is endorsed by our leading surgeons, and employed so generally in the hospitals.

The patient was in an excellent state of health; tonics being used only during the first two or three weeks, when the discharge was very profuse. The discharge grew scanty and entirely ceased at a time when bony union ought to have taken place. There was no necrosis. There was neither a history of syphilis or osteomalacia, and I can assign no rational cause for the failure to at first get bony union, except the extreme injury done to the soft parts at the point of fracture.

Of the plans of treating ununited fractures, perhaps not one has found more general favor with surgeons than the process of drilling the ends

of the fragments. It is true that bony union has followed counter-irritation, friction of the broken ends on each other, electricity, &c.; but success by the former has so often followed failure by one or more of the latter methods, that it is now regarded as the operation most worthy of a trial. But there are conditions in which *it* also fails, and we are led to try a more formidable yet truly sensible method of cutting down to the seat of trouble, and removing the cause, if it may be found.

In one instance the failure may be due to necrosis of the shaft; in another to a detached fragment of bone or some other foreign substance between the opposing ends; in a third the broken ends may have been kept separated, as, by undue extension, or, like the case in question, the bones may have been nicely reduced and kept in place, but for some reason, not easily accounted for, they have only united by a kind of fibrous tissue which cannot be formed into bone.

DOVER, May, 1876.

CASE OF EMPYEMA.

BY HENRY HULSHIZER, M. D.

On the 27th of February, 1875, was called to see Samuel G——, æt. 19; found him suffering with pleuro-pneumonia of the left lung, also pneumonia of the lower lobe of the right lung. Pursued the usual treatment in such cases, which was continued for ten days. Being no improvement, Dr. Condict was then called in consultation. Patient continued about the same for several days after this, when Dr. Rossi was also called in consultation. The treatment was then changed, but no improvement followed.

March 16th. Percussion gives complete dullness over the whole of the left lung, encroaching on the right. Inspection shows marked fullness; heart's impulse just beneath the sternum but slightly higher than normal. As the effusion increased, the heart moved to the right border of the sternum. The area of dullness also extends beyond the median line. With these changes respiration became more difficult, the patient could no longer breathe comfortably with the head and shoulders low.

On the 21st of March, Drs. Condict, Rossi and myself attempted to remove the fluid with an aspirator, but faile[illegible] [illegible]ing too thick to pass through the tube. A m

was then introduced. On withdrawing the trocar there was a free discharge of healthy pus, to the amount of three pints. The canula was withdrawn, and the wound left to heal, which it did in three or or four days. After this time the patient appeared to improve for several days; the heart, however, remaining well to the right. The contraction of the left side was quite perceptible immediately after aspiration.

By April 3d the chest had again filled so as to make respiration more difficult. At this time Dr. Condict and myself again met to operate, but an examination convinced us that it would open internally. The operation was postponed. Our apprehensions were well founded, for we had scarcely left the patient when he commenced coughing enormous quantities of matter. An opening was no doubt formed from the pleural cavity into one or more of the bronchial tubes, and through this the pus escaped.

On the 6th of April it opened again externally, at the point of paracentisis. The amount of pus discharged by the internal opening must have been from two to three quarts, and less than this amount from the external opening at the last issue. The external opening continued to discharge four weeks, when it healed without trouble.

From the 6th of April the patient gradually improved until the 5th of June, when he returned to his home in the north of England.

While he remained in this country the heart never returned to its normal position, but remained under the sternum. When last heard from, he was in good health, and at work in the mines in England.

PORT ORAM, May, 1876.

CASE OF SEPTICÆMIA, RESULTING FROM A COMPARATIVE SLIGHT WOUND.

BY DR. F. W. OWEN.

December 24th, 1875, called to see Wm. B., a German, æt. 28. A few hours before, while using a drawing-knife in the woods, the knife slipped and inflicted upon the knee-pan a wound about two and one-half inches long, and penetrating the patella. He had lost considerable blood, and I proceeded (not having my surgical needles with me, and being out of the town) to dress with strips of the "American Skin Plaster" [illegible] a roller bandage saturated with carbolized

oil (one part crystals to twenty of olive oil, with sufficient glycerine to dissolve the acid), and directed perfect rest on the back.

Dec. 25. Removed the plasters and soiled bandages, and re-applied the carbolized dressings alone. Found the wound not uniting.

Dec. 26. Had had some fever. Edges of wound gaping. Ordered small doses of aconite if fever returned, with nourishing food, and dressed as usual.

Dec. 27. Knee not looking well. Had had what afterwards proved to have been rigors, alternating with flushes of heat, and followed by fever for an hour or two. The house being in a marshy "hole," surrounded by low hills, I concluded my patient was threatened with a return of his chills. I should have commenced at once with quinine, but delayed twenty-four hours, ordering only stimulants and nourishment, and adding to the fresh dressings a wide band of oiled silk.

Dec. 28. Patient doing poorly; wound gaping and of a purple red color; knee swollen. His friends reported alarming "spells" and a sleepless night. Apprehensive of septic absorption, after dressing the wound and replacing the oiled silk, I ordered twenty grains sulphate of quinine after the next attack of fever, and four grains every four hours afterwards; also generous quantities of old apple whiskey, and all the concentrated beef tea and milk that could be taken. The wound to be kept perfectly clean.

Dec. 29. Patient had been at times delirious, and at times clammy. Found the knee much swollen; not very red but very painful, especially on the inner side; wound covered with a sanious pus (which was found in varying quantity for a week afterward). I punctured the most painful point deeply with an exploring needle, withdrawing only a little bloody serum. The puncture caused great distress at the time, but was a useful procedure. The abscess I was looking for did not occur. Continued the quinine in full doses; discontinued the carbolized oil, and dressed the wound as follows: powdered the wound thoroughly with pure salicylic acid, then wrapped the knee in a hot poultice medicated with Labaraque's solution, then wrapped the whole with double thickness of dry flannel, then swathed it with oiled silk. This process to be attended to twice or thrice daily.

Dec. 30. Had had sinking turns, with clammy sweats, followed by fever and delirium, but found him rational and the climax apparently reached.

From December 30th to January 3d I attended him twice daily,

while his system struggled with the septicæmia, and witnessed alternate improvements and periods of sinking and threatened collapse. The wound was dusted morning and evening with the powdered salicylic acid; the hot poultices, medicated with the muslin wrung from Labaraque's solution, were faithfully continued, and the knee was kept swathed in flannel and oiled silk. Internally, I added to the quinine, "Beef Wine and Iron" for the appetite, as well as the most generous diet.

The periods of sinking fortunately grew less in frequency and duration, while the knee and leg gradually became smaller, and the wound assumed a more satisfactory appearance, filling up with healthy granulations, and finally closing from the edges. A week later, the patient walked two miles with comparative little fatigue and only temporary swelling, and is now doing well.

The case is interesting as showing the danger, especially with unfavorable hygienic surroundings, of apparently slight bone wounds; the indispensable character of quinine, should there be purulent infection, and the great value in the treatment of wounds of salicylic acid, topically combined with perfect exclusion of air, and the production of local diaphoresis by means of the poultice and oiled silk method. I may add, in concluding these hurried notes, that the temperature of my patient, taken in the axilla, did not fall below 98 degrees nor exceed 102 degrees Fahrenheit.

MORRISTOWN, May, 1876.

COMMUNICATIONS.

BY J. G. RYERSON, M. D.

I.—*Fracture of the Epiphisis.*

On June 7, 1875, was called to see J—— B——, a boy aged 15 years. On the day before, he fell eight feet on his left shoulder. I found a rather large rounded prominence in front of the coracoid process, below the clavicle. His friends said the swelling was there immediately after the fall.

The belief that a dislocation had occurred suggested itself so forcibly that at once I attempted to reduce it. Being unsuccessful, and

finding I gave considerable pain, I tried again with the use of chloroform. While manipulating I got a muffled crepitus: it then occcurred to me, what I ought to have known at the first, that the case was one of fracture of the epiphisis. I had read Dr. E. B. Moore's able paper on this subject, delivered before the American Medical Association of the year before, and it was plain that this was a well-marked case of that kind of fracture. The head of the bone could be felt in the glenoid cavity, there was slight shortening, crepitus, and a rather large rounded prominence in front of the coracoid process.

On account of the tenderness produced by the handling, the dressing was deferred until the seventh day. It was then dressed somewhat after Clark's method of treatment for the fracture of the surgical neck.

The fracture was reduced by carrying the arm forward and upward. The upper end of the lower fragment was kept outward by a pad in the axilla, and somewhat backward by a strip of adhesive plaster around the humerus and around the body. Another plaster commencing from the outside of the arm above the middle, to below the elbow, and up to a point opposite on the inside of the arm. A weight was suspended from the loop below the elbow to produce extension. The arm was then bandaged, the forearm flexed to less than a right angle, with the elbow near the side and a little to the front.

The dressing was entirely comfortable, and when removed on the twenty-fourth day after the injury, there was little deformity, and every motion of the arm was perfect and complete.

Although the result was very satisfactory, still if at the time I had been familiar with Swineburne's apparatus, as recommended by Dr. Moore, I should have used it, as I believe I shall do in my next case.

These cases are of interest because most practitioners make the mistake of supposing they have a dislocation, whereas a dislocation almost never occurs. If the fracture is not recognized, permanent impairment and deformity will result; but, if properly treated, there is no fracture in which the union is more rapid and perfect.

I took occasion in this case to verify as far as possible the points of pathology and diagnosis spoken of by Dr. Moore. I believe he has elucidated the subject most thoroughly.

BOONTON, May, 1876.

II.—*Œdema of the Glottis.*

On the 16th day of April, 1875, D—— M ——, a healthy man, forty years of age, gardener by occupation, consulted me about his throat. He said it had troubled him for two or three days, and he had supposed that he was "going to have another attack of quinsey." I could find only a little redness and swelling about the fauces.

On the 17th, he said his throat was worse—that it pained him. The appearance was much the same as the day before, except that it appeared more livid. I told him there was not much trouble, but he thought there was. Was called in the same evening, when he told me that he feared there was more trouble than I supposed. His voice was not affected, no difficulty in breathing, countenance somewhat pale, pulse a little more frequent and rather small. There was pain about the larynx, with livid appearance of the fauces. I left him without being able to quiet his apprehension.

At about daylight the next morning I was aroused by his wife, who said her husband "had a smothering in his throat." The patient lived only a few rods off, and I went there as quickly as possible. I found him on the *verge of suffocation.* I was told that a few minutes before he had attempted to gargle his throat, and immediately he had great difficulty in breathing.

His pulse was 125, small and weak, countenance pallid, eyes sunken, and lips livid. The breathing, both in expiration and inspiration, was loud and extremely difficult. He pointed to the larynx as the cause of the trouble. This examination convinced that it was œdema of the glottis.

I proposed to operate at once by the mouth, and in case of failure to open the trachea. At this time Dr. S. Pierson came and confirmed the diagnosis. At his suggestion, instead of using a hernia-knife, an ordinary hatchet-shaped gum-lancet was used, the handle and blade together measuring five inches. While Dr. P. held the head firmly back the left index finger was crowded firmly down until it reached the rim of the glottis; the point of the lancet was then carried beside the finger until it reached the rim of the glottis; after two or three strokes of the lancet both the finger and the lancet were withdrawn. The patient immediately drew a full inspiration, and said, "I am well." And he was well, for the relief was *immediate, complete* and *permanent.*

After the withdrawal of the finger it was noticed that it was streaked with a slightly reddish and partly viscid fluid. From the time when first summoned not more than 12 or 15 minutes elapsed until the patient was relieved.

Œdema of the glottis is a rare and rapidly fatal disease. Many die before they are seen by the doctor, and many more die before he is ready to operate.

The hernia-knife and a covered scalpel have been used, but they are seldom at hand, while the gum-lancet is carried by almost every practitioner. It is safe, and if about five inches in length it can be introduced wholly within the mouth, even if the head be not held well back.

It is quite generally recommended in these cases that the trachea be opened at once. According to Dr. F. Hamilton, eleven cases have been reported that were relieved by scarification. It would seem that relief by the month ought to be attempted in every case, since it can be qnickly and safely tried. Whatever may be the objections to operating by the mouth, it must be admitted that there is nothing that a medical man can do that gives such brilliant results—for the patient is carried at once from impending death to complete convalescence.

BOONTON, May, 1876.

CHRONIC DYSENTERY TREATED BY INJECTIONS OF CHLORATE OF POTASSA.

BY LEVI FARROW, M. D.

I am persuaded, both from personal observation and the reading of authorities, that chronic dysentery is a malady of not infrequent occurrence, and often a very unmanageable disorder. From the favorable result that has attended a particular course of treatment in a case of this kind, I am led to report the following:

Mrs. Annie L., aged 68, had suffered from an exhausting diarrhœa, with dysenteric symptoms, for several weeks, when she came under my care for treatment. The severe drain to which she had been subjected had greatly reduced her. The injections were often slimy, bloody, and offensive; at other times almost natural. At times there were only two or three discharges per day; again there would be an almost constant going to stool. Sometimes the passages were semi-solid and

natural in appearance; then they would become bloody, or slimy, or purulent, with perhaps scybala. The evacuations were generally preceded by a sharp pain in the rectum, and were followed by a tormenting unsatisfied condition of the bowels, which the patient termed a "loose feeling."

I prescribed an occasional aperient, followed by opiates and astringents, antacids, tonics, &c., with varying effect. Sometimes she appeared better, at others worse. Her general health did not improve. I varied the treatment from time to time as I found that one or other of the prescribed remedies failed to produce the desired effect. Her diet was restricted to the most nutritious and easily digested food. Opium had such a disagreeable effect that I was forced to discontinue it. I then gave her teaspoonful doses, ter-die, of the sub-nitrate of bismuth for several weeks. There was some improvement, but no cure. At the suggestion of my friend Dr. Mattison, I gave her a course of salicine, until she had taken two or three ounces, but with only temporary relief. Other physicians were counselled, and some of their "never known to fail" prescriptions faithfully but unsuccessfully tried. She became more and more emaciated, until she was truly nothing but "skin and bones," and her demise was considered close at hand. When about to give up in despair, I fortunately observed in the "Compendium of Medical Science," a report of obstinate cases being successfully treated by injections of chlorate of potassa, per anum. I immediately directed an injection of two ounces of a saturated solution (water and glycerine in equal parts,) after each passage, or at least two or three times a day. The glycerine was soon omitted from the prescription and a simple watery solution substituted. At first the patient could not retain the injection; this was partly, overcome by keeping her in the recumbent position after each injection. The fluid was generally retained about half an hour.

I visited her in two or three days after instituting the above treatment when in exchange for the usual reply "no better," she said she "guessed she was doing middling well," and convinced me of the truth of the assertion by directing me to a vessel containing recent dejections. I will never forget their appearance, for, aside from fecal matter, slime, &c., there was at least a handful of scabs and what appeared to be shreds of membrane. There was one strip which measured half an inch in width and three and a half inches in length. The discharge maintained this character, except that in a few days the scabs ceased

to appear. Although greatly relieved, convalescence was not as rapid as I had hoped for. She still complained some of that loose feeling, as she described it. Although the passages were generally quite natural, both in appearance and frequency, yet they would occasionally assume the old character. Suspecting ulcerations higher up, I now substituted the vaginal for the rectal nozzle, when more scabs appeared, and the patient took another step forward; but, as before, they soon ceased to come, and although there was a decided improvement, she found another halting place. I then attached a large sized gum catheter to the syringe and had her introduce it the whole length. It was an old one and allowed the fluid injected to ooze from all sides like a strainer. This was followed by another harvest of scabs; but they soon ceased to come and my patient slowly, but surely, improved. She still had a relaxed condition of the bowels, however, which was easily controlled by 5 to 10 grs. doses ter die of a powder composed of equal parts: Dover powder, sub-nitrate of bismuth, tannin, and sulphite of soda, which I had before administered with quite good effect, only that it was powerless to perform a cure previous to the use of the injections. She also wore (suspended from the shoulders) upon the bowels a large thick compress, frequently wrung out of cold water, which she thought did her an immense amount of good in removing tenderness and giving tone to the bowels. She is now well, and has passed through two diarrhœal seasons without a return of bowel complaint. I am prompted to report this case from a desire to help bring to the attention of the profession a means of treatment which I have great reason to believe is not much resorted to, in this tedious, intractable and often fatal disorder.

MIDDLE VALLEY, May, 1876.

PASSAIC COUNTY.

To Chairman of Standing Committee, &c.:

In accordance with your request, calling for opinions as to the value of topical remedies in malignant sore throat, and also as to the cases in which calomel is considered the most beneficial, the reporter has sent notes to the different physicians composing our Dis-

trict Medical Society, to which but one, Dr. A. W. Rogers, has responded. He says: "In answer to the query in regard to the topical applications in malignant sore throat, I would say that I seldom make any except by the way of a gargle, and swallowing the medicine. In diphtheria I usually trust to the application made in swallowing the quinine and iron, chlorate of potash and alcoholic stimulants, which alike serve for the constitutional and local disease. I have tried the carbolic acid spray, but without much satisfaction. I have not tried salicylic acid. When the patient can gargle the throat, I have seen alum, tannin and glycerine of benefit, and have occasionally applied to the tonsils the alum and tannin in powder. I also think well of a gargle made of yeast, honey and brandy. Some very bad cases of diphtheria I have seen recover without any local application, under full doses of quinine, tr. chloride of iron and brandy, and have known many to perish where the most diligent use of escharotics was made.

The cases in which I now think calomel of the highest value are the second stage of croup and some cases of pneumonia. I would hardly undertake to treat any decided case of croup, if I were debarred from the use of this potent remedy. If emetics and the adjuvant treatment do not give decided relief in three or four hours, I immediately begin to give a grain of calomel and a quarter to half a grain of ipecacuanha every hour; and if there be much of the stridulous breathing, sometimes every half hour, and continue it until the harshness of the cough and the tightness of the breathing are relieved. I know nothing like it to alter the plasticity of the exudation, which in this disease packs the larynx and trachea,

and thus shuts out the vital air. At the same time I give much more attention to securing nutriment and avoiding catharsis, excessive perspiration, and all the prostrating remedies, than I did in the early part of my practice, when all these things were counted so important as antiphlogistics. Tartar emetic, excepting one or two emetic doses in the very early stage of the disease, and very minute doses afterward in the more robust, I think a dangerous remedy from its very rapid prostrating effect. In mild cases, ipecac is much to be preferred, and in the severe cases there is nothing like the turpeth mineral (sub-sulph. mercury) for promptness and efficiency as an emetic, without much prostration.

Where the secretions are scanty in pneumonia, and the expectoration a rusty or blood-colored frothy mucus, the dyspnœa great, and the substance of the lung becoming rapidly hepatized, I know of nothing so reliable to arrest this condition of things and to insure an early resolution of the disease, as small and frequent doses of calomel combined with opium and ipecac. It is not necessary to carry calomel to the extent of risking salivation, if the case be cautiously watched, and it forms but a part of the necessary treatment; but in my judgment it often forms a very essential part, and the most diligent use of all the more modern remedies in many cases will not supply its place. I have seen speedy relief from its use too often to doubt its efficacy, and would feel guilty did I not occasionally resort to it."

During the past year, Paterson has been visited by scarlatina and diphtheria, and also by a few cases of variola; the latter, however, was pretty thoroughly isolated and quickly controlled.

Of diphtheria there have been many cases, with quite a large percentage of deaths. The treatment which in the hands of your reporter has been most successful, is that which is directed to the disease as a constitutional one entirely, and, as such, to be treated by *general*, rather than *local* remedies. Of these, the tincture of the chloride of iron and potassium chlorate, with stimulants and alimentation almost *ad libitum*, have appeared to yield the best results.

Scarlatina has presented about its usual variety of type; in some instances being so malignant as to overpower by its poison in a short time; in others so mild as scarcely to call for medicine at all.

In March and April, 1876, the epidemic of influenza which spread so extensively through the Middle States, prevailed to quite an extent here, but was generally more annoying than dangerous.

Our District Society is in a flourishing condition, numbering over thirty members.

Since the sending of the last report, our President, Dr. Orson Barnes, has been removed by death. After a lingering illness, he died July 23d, 1875, in his 46th year, sincerely lamented by a large circle of friends and patients, and respected by his associates in the profession.

Appended are cases of interest communicated by Dr. A. W. Rogers.

Respectfully,

SARAH F. MACKINTOSH, *Reporter.*

PATERSON, May 8th, 1876.

COMMUNICATIONS.

BY A. W. ROGERS, M. D.

I.—*Report of Case of Scarlet Fever.*

About noon, December 6th, 1875, I was called to see Eva H., aged about five years, who had been taken sick the day before. I found her semi-conscious; skin dry and hot, with a slight general eruption on it, and here and there patches of a deeper hue. Her tongue was red at the end, coated at the back part, her lips dry. She had a convulsive working of the mouth and head, and a knitting of the brows. She would not respond to any request. Her pupils responded to light.

I ordered her to be put in a tepid bath every two hours, and to keep a moist bandage around her body between the baths; also to anoint her with olive oil and lard every eight hours. Gave her bromide potassium, five grains every hour until she was more comfortable, and a tea-spoonful of a moderately strong solution of chlorate of potash every hour.

7 P. M. In all respects about the same; baths and medicines administered as ordered.

Dec. 7, 10½ A. M. Tongue red and clean as far as can be seen; not quite so much convulsive twitching of the face; at times she looks a little more intelligent; pupils respond to light. She seems sick at the stomach occasionally; neck a little swollen. I could not get a good look at her throat; there is some snuffling at the nose; temperature 102½. Baths and medicines continued the same; ordered a milk punch to be given her occasionally.

6 P. M. Child has rested more; has had the baths and medicines well administered. Her mother says that she is always more composed after the bath. She seems less nervous, and has been at times more intelligent.

Dec. 8, 10 A. M. Child more quiet, but does not respond to questions; pupils sometimes contract and dilate widely in the same light. Pulse over 100, very feeble, irregular and indistinct; temperature 105. Has had baths, cold to the head, and iced drinks. The eruption is not uniform; irregular patches of more or less intense redness are scattered here and there over the body; continued the same treatment.

6 P. M. Temperature 104½; pulse very weak; parents say that she knows them well at times, and then relapses into an unconscious con-

dition; continued the moist cloths to the body, and the bath occasionally.

Dec. 9, 9½ A. M. Child appears more intelligent—notices her playthings; temperature 103½; pulse small and frequent. She swallows pretty well, and has taken some nutriment and milk punch.

5 P. M. Temperature 103; is more delirous; hard to get her to take anything.

Dec. 10. In all respects improved; she takes nourishment better; the temperature is less and the pulse stronger. The baths were continued, but not so frequently.

On the 11th, moist cloths were substituted for the baths. I continued to give her some bromide potassium, and gave also some expectorant mixture of squills and seneka and spts. nitre, as she had some cough. I also directed her to have on the 10th and 11th some injections of brandy and milk, as she did not appear to take sufficient nourishment. She was very restless, but her temperature was less, and she was more intelligent. From this time she rapidly improved, and made a good convalescence. The chief points of interest in this case are the severity and evidently congestive form of the disease, the apparent and decidedly beneficial effect of bromide potassium in allaying the nervous symptoms, the lessening of the body heat by the frequent use of tepid baths (which were but tepid, and during the hot stage of the disease almost cool), and the benefit of stimulus given by the stomach and by injection, in sustaining the action of the heart.

I have been in the habit, during all the course of my practice, of using tepid and cool baths during the hot stage of scarlet fever, having learned the treatment from Dr. Currie's reports, and the corroboration of its success by Dr. Gregory, of Edinburgh, as published in his Practice of Medicine, which was the common text-book when I was a student; and of late years I have been more and more convinced of the importance of its being the principal part of the treatment of this disease.

When the child is lifted from the bath, without drying, I have it wrapped in a warm flannel or sheet and laid in the bed; this prevents fatigue and annoyance, and allows it immediately to rest, and thus more benefit is obtained by the procedure. I sometimes have it put in the bath every hour, or every three, four or five hours, according to the degree of heat and restlessness.

PATERSON, May, 1876.

II.—*Excessive deposit of Fat over the Abdomen.*

In December, 1874, I saw Mrs. J. D., aged about 60. She was sitting up and panting, with a good deal of dyspnœa. Her abdomen appeared enormously distended, and there was also great swelling of both legs; on one the skin was broken, and there was much weeping from it. Her countenance was florid, and the veins of the head and neck were full. Her pulse was regular, and of moderate fullness and frequency. Her urine was scanty, reddish and turbid, and yielded a little albumen on testing. She said that she felt great oppression in breathing, and that this condition had been coming on for some months.

I prescribed for her acetate of potash and infusion of digitalis, which was continued three or four days, without effect. After that I ordered full doses of bitartrate of potash. This loosened the bowels and acted a little upon the kidneys—but very little. I also tried some other diuretics, without benefit. She was very uncomfortable at night, and could get no rest. About the tenth night from the time I first saw her, I sent her $\frac{1}{8}$ gr. of sulphate of morphine. She slept some during the night, but in the morning the breathing was more oppressed than ever, and the return of blood from the head and extremities more obstructed. Her pulse became very feeble and irregular; the abdomen appeared much distended, and yielded no resonance or percussion over the middle or lower part of it. Hoping to relieve her by tapping, I pushed in a trocar $2\frac{3}{4}$ inches long, about two inches from the linea alba, and three inches below the umbilicus. It seemed to enter a cavity, but no water flowed. I then tried it in another place, with the same result. Leaving the canula in position, I passed through it a smaller trocar 4 inches long; no water, but a few drops of blood, flowed out. Her breathing was becoming more and more obstructed, and she died in an hour. After death I passed in a long and large aspirating needle at the point of the first puncture, and drew off a basin full of turbid serum. I then opened the peritoneum, and found no more water of any consequence; but the fat on the abdominal wall measured five inches deep. The wall itself was thin. No farther examination of the body was permitted.

PATERSON, May, 1876.

III.—*Report of a Case of Chorea.*

On the morning of Monday, January 23d, 1876, I was called to see a young woman in her eighteenth year, of fair complexion and light hair, the oldest child of parents, both of whom were of a nervous temperament.

She had decided chorea contortions; the mind was also affected, and she had the usual willfulness and vacillation appertaining to this disease. The contortions were unusually constant and severe. She had been out at church the day before, and seemed pretty well, but it was afterward remembered that there had been something peculiar in her manner for some time before the attack, which now appeared to come on suddenly. Though not at all deficient in intellectual capacity, she had been unusually childlike in her manner and tastes. She had never menstruated.

I prescribed for her, at this visit, emenagogue pills (Hooper's), one pill twice a day, and Fowler's Arsenical Solution, four drops three times a day. I did not see her on Tuesday. On Wednesday morning between 3 and 4 o'clock I was called to see her, because of the violence of the contortions and her inability to sleep. I gave her some bromide of potassium, which quieted her somewhat. In the forenoon found her no better; increased the dose of Fowler's solution to six drops, and gave her some brom. potassium during the day; also ordered her to have a shower-bath. During Wednesday evening and night she was very bad; the contortions were very violent. I gave her at night two scruples of bromide of ammonium and 1-6 grain of sulphate of morphine. She slept but little, but writhed about, jerked her arms, head, legs and body continuously, and made most violent contortions in attempting to speak or swallow. She puffed, smacked, snorted and gulped, rendering it very difficult to get drink or a dose of medicine administered.

On Thursday she was a little more controllable, and had a bath. She took some breakfast of bread and milk. During the day I gave her some bromide of potass. and ammon. In the evening the spasms were again severe. I gave her then a dose of morphine to procure sleep, and administered chloroform, but with very temporary effect. She slept a little, but not long.

Friday morning she was about the same, but rather weaker. Despairing of doing anything with the arsenic in so violent and acute a

case, I changed it to sulphate of strychnia, beginning with 1-40 gr., three times a day, and intending to increase it according to its effect. Friday evening, tried to procure sleep with chloral hydrate, administering 25 grains in some sweetened milk. She was much disgusted with the taste, and, as it did not give her sleep, late at night I gave her a hypodermic injection of ¼ grain of sulphate of morphine, after which she slept some hours.

Saturday morning she was evidently weaker; the spasms and contortions were about the same; it required constantly two persons to keep her in bed; her limbs could only be kept quiet by rolling them in the bed clothes. She found more difficulty in expressing herself, and in taking food; when she did speak, her mind was clear. At times she perspired a good deal. Her pulse was very difficult to count, owing to the contortion of the arms, but was evidently very rapid and feeble.

In the evening there was no improvement—she was rather worse. I put her under chloroform for an hour, which gave her rest for a while, after using it; in the night it was again administered, and she slept quietly for three hours. During the day (on Saturday) I directed spts. turpentine to be applied to the spine.

Sunday morning she seemed very weak, and the pulse indicated the need of stimulants; gave her some milk punch very early on Sunday.

At 9 o'clock there was less spasmodic action, so that she could swallow better, and she took some more nutriment; but at 10 o'clock she commenced to vomit, and vomited several times during the day. Ice was applied to the upper part of the spine, as was done also on Friday and Saturday, and appeared to relieve her somewhat.

During the forenoon, she was evidently growing weaker; respiration was more hurried and shallow; pulse rapid and feeble.

At 11 A. M., Dr. R. A. Terhune, of Passaic, saw her with me. Although the case appeared to him very grave, he still thought that she might recover. He could not see that it was anything but a much aggravated case of chorea. At this time, although so feeble, she could put out her tongue when requested, and answered correctly though with difficulty. She continued to vomit, notwithstanding the usual remedies for this symptom, through the afternoon and night.

At 4 A. M., on Monday, she was extremely restless, breathing very shallow and hurried; from being hot the extremities became cold; her whole body appeared in a quiver, and she died at 5 A. M.

I have seen many cases of chorea yield to arsenic, and some to large doses of sulphate of zinc and other remedies, and have usually commenced the treatment with confidence, and, until I encountered the case now related, had no proper conception of what might be its awful severity and rapid progress to the death of its subject. The "insanity of the muscles," like that of the brain, sometimes seizes its victim with such a savage, unremitting and unrelenting grasp, that not only the proper function but life itself soon yields to the foe.

PATERSON, May, 1876.

IV.—*Apoplexy following Pneumonia.*

I was called April 5th, 1876, to see Mr. H. W., a farmer, aged 52 years, of rather spare frame, temperate and active habits, who had usually enjoyed good health, but was given to smoking a good deal. I found that he had kept the house for a day or two and had suffered general symptoms of influenza, which was at that time prevalent in this vicinity. After a day or two, his cough increased and he had rather severe pleuritic pain; he was relieved of this by a blister, and appeared much better, when some decided symptoms of pneumonia became manifest. This reached its worst about April 12th or 13th, at which time, to relieve the cough at night and to give him some rest, a dose of sulphate of morphine (1-6th gr.) was administered for several successive nights; about this same time, during the exacerbation of the fever in the evening, he had some delirium. On the 16th, visiting him in the morning, I found he had very little cough and no difficulty of respiration; his pulse was moderate, the lungs clearing up nicely, physical signs good, and all his symptoms improved; but he had gone into a taciturn and rather sullen mood and refused to take any more food or medicine. He had been taking some quinine every forenoon, and some diuretic and expectorant mixture in the afternoon; also a moderate portion of milk punch, beef tea, &c. His condition not being urgent, I did not press upon him medicine or food, except the latter, in moderate degree. After a day or two, this mood passed away, and he was as cheerful and reasonable as could be desired; he appeared every day to be gaining strength, and was sitting up part of the time, when late in the afternoon of April 23d, he was taken with a chill; to this succeeded a comatose condition, and some arterial excitement, attended with some slight convulsive movements of the head

and limbs; the coma became more profound until he died on the afternoon of the 24th. (During life no abnormal heart sounds could be detected.) What the proximate cause of this sudden attack which ended in death beginning at the brain was, whether hermorrhage, embolism or thromboses, circumstances did not permit us to discover, but the case shows how suddenly the physician's hopes may be disappointed when recovery is certainly expected.

PATERSON, May, 1876.

SUSSEX COUNTY.

To Chairman of Standing Committee, &c.:

From Vernon, Dr. C. Allen writes: "The health within the limits of my practice for all the fore part of the past year may be reported generally good. The cases calling for medical attendance were generally unimportant; the exceptions were cases of peritonitis, rheumatism and gastralgia. The first two yielded readily to the usual modes of treatment." Speaking of peritonitis he says: "Authors pronounce it an idiopathic affection—one of the rarest of diseases—and find its most frequent cause to be perforation of the alimentary canal from ulceration, &c. I cannot say my experience coincides with this view. It appears to me to be nearly as common as pleuritis or inflammation of other serous membranes, and from similar causes."

He also reports a severe and protracted case of gastralgia, ending in recovery. Epidemics of scarlatina, measles and hooping-cough, have prevailed in his vicinity during the winter and spring, though not of a severe type; "but the pneumonia and bronchial inflammations have been more prevalent and severe than usual; all, however, ending in recovery save one case, which has gone on to suppuration; two abscesses have

discharged, and now, unfortunately, a third seems ready to follow."

Dr. Moore, of Deckertown, informs me that there was an epidemic of diphtheria in that vicinity last autumn, and during the winter and spring an epidemic of influenza and pertussis. He uses belladonna in the latter disease with gratifying success. In this practice there have been several cases of scarlet fever of the anginose variety, ending in recovery with one exception. The poison was directly traced to the clothing of a child who had died in Connecticut and which had been brought here. Of true diphtheria there were three cases in one family, two of which proved fatal. The remedies used were chlorate of potassa, mur. tinct. ferri., quinia and alcoholic stimulants, while the vapor of lime-water was kept constantly in the apartment. No other cases occurred. During the year there have been many cases of herpetic sore throat, which yield readily to a cathartic and chlorate of potassa. Some practitioners, who we believe know better, persist in calling these cases diphtheria, notwithstanding they do not possess one of the essential elements of that most fatal and malignant disease. Pneumonia and bronchitis have prevailed during the winter and spring ; and if one may judge from outside reports, the former has been more than usually fatal, though not with us. The epidemic of measles and hooping cough mentioned by Drs. Allen and Moore, extended to this community. In many instances there were pneumonic and bronchial complications. Almost every man, woman and child in this vicinity, was complaining at one time this spring of the "cold that's going round ;" epidemic bronchitis or influenza, the symptoms of which were frontal headache, coryza,

fever, loss of appetite, &c. Most of the cases were treated by domestic remedies, but occasionally the severer ones called for free purgation, followed by Dover's powder.

Malarial poison shows itself during the spring, summer and fall months, in the form of chills and fever, neuralgia and cephalalgia, for the speedy relief of which no remedy is quite so effectual as quinia. Isolated cases of typhoid fever have occurred during the year past, one case only proving fatal.

Since the last meeting of the Society, one of our active and useful members, Dr. E. W. Mains, of Flatbrookville, has been removed by death, in the prime of life; having the confidence of the community, his untimely demise is a severe loss to his friends and to the profession.

I enclose a communication from Dr. Thos. Ryerson, and a case by Dr. Carlos Allen.

J. P. COUSE, *Reporter.*

HAMBURG, May 18th, 1876.

COMMUNICATION BY DR. T. RYERSON.

1st. Let me call the attention of such as are not already familiar with it, to the value of iodoform, the analogue of chloroform as a local anæsthetic in painful ulcerations, especially at the rectum, ulcerating cancers, and in burns and scalds. My attention was directed to it by Dr. Van Buren, of New York. I use glycerole amyli as the excipient—an ounce of it with twenty grains of the iodoform—and apply with a camel's hair pencil. I doubt not that it may admit of extensive application.

2d. I wish to report, that full anæsthesia, by a mixture of chloroform and ether, has, in at least one case, produced entire relaxation of the uterus, during labor. That case was a primipara, whom I visited in consultation with Dr. A. The head presented, and was almost impacted, because in the position of extended chin or occipito-frontal

diameter transverse, engaging at superior strait. As the woman had had a violent and prolonged attack of abdominal pain, simulating peritonitis, it was thought that version would be hazardous. This is ordinarily the first mode of management, at least in multipara. In primipara it is hazardous to the child, because the head must be detained at the outlet by a tense perineum. But in these cases ordinarily the forceps are apt to increase the extension of the head, and I have no faith in the vectis. I have seen the use of the forceps necessarily followed by the use of the perforator and crochet. On the other hand, by version I have terminated several cases well and speedily. In this instance I decided on trying the forceps, on account of fear of peritonitis following version. The patient insisted on ether, which is barely tolerable in operative midwifery. The forceps were introduced readily; but not locking readily, were strongly depressed, without proper attention to the fact that this operation always tends to push them into the uterus. Refusing to lock, they were withdrawn for reintroduction. Proceeding to this, what was my surprise to find the head entirely receded, precisely as if the uterus was ruptured. I at once did a version, and, on account of the delay of the head, finished with the forceps. But the child was dead. Suffice it to say, there was no rupture. I had feared that it had resulted from a supposed powerful contraction during the full anæsthesia of the first introduction of the forceps. The ether was withdrawn as soon as the version was begun, so as to secure full contraction—very important indeed if there had been rupture. The simple explanation is, that the ether relaxed the uterus, and the act of depressing the forceps handles brought the blades against the fœtal body and pushed it back. Every one can read the lessons which this case teaches.

3d. Although stone in the bladder is rare, yet it does occur in New Jersey. I wish to say that any physician who is familiar with the use of the solid bougie, may treat every case proper for lithotrity if he will carefully follow Sir Henry Thompson's admirable treatise. Indeed, it may be said in passing, that his several works on diseases of the urinary organs are destined to be classic for a long time. My authority for this assertion is, that I crushed an oval stone (principally urates) $\frac{3}{4}$ by $\frac{1}{2}$ inch, with one of Thompson's lithotrites, the first instrument of the kind I had ever handled, in three operations. The patient has been now two years free from all symptoms of stone. One of the fragments was seized with the alligator forceps in the beginning

of the membranous urethra, but was pushed back and withdrawn after a fuller dilatation of the passage. The second operation occupied eight minutes, and was slightly resented, as was shown by fever, &c. The third, however, followed in eight days. This and the first consumed five minutes.

Case by Dr. Carlos Allen.

I have not often in my professional life been required to prescribe for spermatorrhœa, the sequel of vicious habits. But lately a young man of 23 applied to me to perform the operation of castration upon him, having suffered for years from this affection; having read everything he could find on the subject, and tried every remedy he could read of in vain. I do not mention the case to relate all the particulars. I treated him with bromide of potash; commencing with 10 grains three times a day, and increasing gradually to 32 grains each dose. The effect has been quite satisfactory, the discharge being checked in frequency to once in two weeks, and producing quite a perceptible change in the feelings and appearance of the patient.

Most clearly the medicine has shown a specific power over the sensibility of the parts involved in this disease.

Vernon, May, 1876.

UNION COUNTY.

To Chairman of Standing Committee, &c.:

The sanitary condition of this county for the year last passed, will compare favorably with that of the previous year. With a population approximating [illegible] thousand, I can say of this city (Rahway), what I think can be said of no other vicinity with [illegible] population, viz: that there was but one [illegible] city limits from August 8th to September [illegible] residence of more than ten years, I have [illegible] summer to pass with so little intermittent [illegible]

so little sickness of any kind. In the fall there was an epidemic of diphtheria; but in proportion to the number of cases, there were as few deaths as could reasonably be expected.

December 5th, I saw a boy aged 9 years; he complained of "pain all over," and said his "throat was a little sore, but not much." Upon examination, I found on one side a slight diphtheritic exudation. I gave him tr. iron, quinia internally, a gargle of alum, chlorate potass., fl. ext. sumac, glycerine and rose-water, and ordered a generous diet. The next day I was unable to see him, but on the 7th I visited him early. Upon examination, the whole throat seemed one mass of diphtheritic deposit; apparently nothing passed into the stomach, for on attempting to swallow milk, it poured from both nostrils; however, as this process lessened the amount, some of the milk must have entered the stomach. He continued much in this condition till the 14th, when the amount of membrane appeared somewhat lessened, and gradually disappeared, so that by the 19th, his throat was clear. During the whole time he had the same difficulty in swallowing, and but for his amiable disposition and the persistent efforts of his mother, who never left him, he certainly would have died from lack of nourishment. On the 20th he sat up. The next day he walked across the room, and the day following went into the adjoining room. On the 23d I was summoned in great haste, the mother being very much alarmed because he could not walk. In a few days, however, he was on his feet again, but his gait was as uncertain as if quite thoroughly under the influence of brandy. I frequently saw him unable to come within four feet of a door that he attempted to pass, and without sup-

port, in the middle of the floor, he was an object of amusement to himself, because, as he said, his "legs wouldn't work." He gradually grew stronger, but as his strength returned and he was enabled to walk more surely, his sight became impaired, so that he could not tell his brothers across the dinner table, when I saw him New Year day. This condition continued about a week, but as if to compensate him for his week's loss of sight, he now saw everything double, except it was within two or three inches of his nose; but as his strength increased the distance of double vision increased, till it entirely disappeared. I made my last visit to him January 28th.

I note this one, because out of a considerable number of cases seen during the past year, I have never seen as severe a case recover, or one of so long duration; neither have I seen the after-effects of the disease so well marked. The treatment consisted in the first part of quinia, tr. iron, internally and locally. The gargle before mentioned was used throughout. Salicylic acid was used locally, I think without benefit. The diet consisted of milk, milk punch, beef tea, port wine, broths, ice cream, grapes and such other fruit as he desired. I take it from this case that if "beef tea is useless and not at all nutritious," it is, at least not a very active poison, otherwise this child would have died a victim to it, for he took each day, for the first twenty days of his sickness, the tea from [illegible] pounds of choice beef.

On the 5th of May, a singular accident occurred at the depot in this city. As the morning [illegible] passed through, Mr. Thomas Page, "the pa[illegible] aged 62, was standing on the platform wit[illegible] toward the passing train. The mail bag was

from the car striking the old man on the left breast, knocking him down, and, as it were, forcing his body forward, while the right hip coming in contact with the platform, produced an injury which made it impossible for him to stand when assisted to his feet. I saw him in a few minutes after the accident, and feared a fracture of the neck of the femur. Later in the day, with the assistance of Dr. D. W. C. Hough, the patient was thoroughly ætherized and my worst fears were realized. It was a fracture of the neck of the femur within the capsular ligament.

My excuse for taking up so much of this report with my own cases is, that out of seven sub-reporters, from all of whom reports have been solicited, only two have responded; one in four lines of note paper, says there has been no sickness in his vicinity, and Dr. Schleimer's report of a case is enclosed.

H. H. JAMES, *Reporter.*

RAHWAY, N. J., May 12, 1876.

COMMUNICATION BY DAVID SCHLEIMER, M. D.

The year has been with us a remarkably healthy one, so much so as to offer no material for an elaborate report. Of the cases worthy of notice, that have come under my observation, are about 20 cases of diphtheria, some of which were of a severe character; all however have recovered, though some remarkably slow and tedious. One case in particular I will mention, who has been treated almost inexcusably heroic, to which I was led by two reasons:

1st. The very desperate character of the case; and 2d, The similarity, in my opinion, of this disease with membranous croup.

The patient in question is John Green, a native of England, aged about 35 years, married, and by occupation a laborer. I was called to his house on February 1st, to see one of his children who had a mild attack of diphtheria, the father then being in apparent good health. The child did well, and recovered in a week or so, when the father

was taken with a very severe headache, fever, general anorexia, some cough, without any further positive symptom. My diagnosis was accordingly guarded.

Attended the patient for two or three days, when upon another examination of his throat, to which I was led by his inability to swallow anything, even a drink of water, without considerable pain, I now found a diphtheritic exudation covering both tonsils and uvula, and at once resorted to usual remedies for that disease.

The next morning I found him declining fast, unable to utter a word above a whisper, and *that* was attended by pain. The exudation had extended to the roof of the mouth, his tongue covered with a thick brown coating, so dry as to almost form a crust: pulse 140. Death seemed written in his anxious countenance. I made up my mind it was useless to continue with the usual remedies; in fact, he was, to my mind, beyond any remedy that might be resorted to. I resolved, for the reasons above mentioned, on the following treatment:

℞ Hydr. Chlor. Mit. ʒv.
Sacch. Alb. ʒii.
M. ft. chart No. X. Div.

S. one every three hours, and left him with a request to his wife to strictly comply with the directions, at the same time explaining to her the almost impossibility of his recovery.

Called the next morning; the powders were all taken, with, I thought, a perceptible change in the patient; he was not so restless; the face did not present quite that anxious appearance; in all I thought him somewhat more hopeful, though there was no change in his mouth. I repeated the above prescription with the same directions.

The next morning I found two powders left, he having sl[illegible] at intervals, and to my great surprise I found quite a [illegible] mouth; the exudation began clearing away in p[illegible] the further use of this remedy and gave acid salicyli[illegible] doses; some quinia with iron, and a stimulant ex[illegible] this time he continued to improve very slowly but [illegible] day, until the mouth was thoroughly cleansed; he [illegible] and on the 25th of February he was able to sit [illegible] smoke. The man is now as well as ever.

I cite this case because I consider it one of int[illegible]

war on this time-honored remedy. While young in the profession, I have seen enough of the value of this much abused article to consider it *the* remedy in many cases, not however in such doses as mentioned above.

ELIZABETHPORT, May, 1876.

WARREN COUNTY.

To Chairman of Standing Committee, &c.:

The past year has been a very busy one for the practitioners of this County. The prominent diseases treated were Dysentery, Typhoid Fever, Diphtheria, Measles and Pneumonia. I hear of Scarlet Fever only in the isolated township of Pahaquarry. There it was mild and unattended with fatality.

In remarking upon the salient points presented in the history of these epidemics, I mention—

First, that the Dysentery of the summer and fall months was not of a very fatal character. But two or three deaths occurred, and these from the incoming of cerebro-spinal symptoms to complicate the intestinal affection. In addition to the standard corrective and opiate treatment, which has stood the test of experience, the use of small doses of belladonna was very efficient in allaying the tenesmus as well as the nervous symptoms. With this the bi-sulphite of soda as corrective and disinfectant, and the bromides *pro re nata*, and we had a system of treatment quite gratifying in its its results.

Diphtheria was very prevalent at Oxford and in the borough of Washington. The absence of reports from the resident practitioners, as to its character and treatment, is to be regretted.

The epidemic of Measles has been wide-spread,

commencing in October last. We are still attending cases of this disease. Its individual type is mild, and when without complication has been entirely free from fatality.

In quite a number of cases, Pneumonia was intercurrent. This was treated very much in the same method as that occurring so frequently during the winter in persons unaffected by the exanthema. The treatment consisted in moderating febrile symptoms *cautiously* with tart. anti., verat. virid. or ipecac, and then relying upon quinine with either ammonia or whiskey: blisters and fomentations externally.

In answer to questions from the Chairman of Standing Committee—Dr. Crane remarks that "the value of topical remedies in malignant sore-throat" depends upon their antiseptic value. He has "lost all faith in all cauterizing remedies." To the second question, concerning "calomel as a therapeutic agent," the Doctor replies that he "uses it very little, except in serous inflammation and in combination with febrifuges."

The reporter adds, that the use of calomel as a cathartic or frequent alterative, is very much diminished since the introduction of valuable substitutes, by which we avoid the secondary or rather the illimitable effects of the former. The milder mercurials, hydg. creta or blue mass, and these guarded or followed by chlor. pot. or bromides, answer the ordin[illegible] purposes.

Notably, however, calomel seems very [illegible] viz: in croup or laryngitis, in acute [illegible] gastric spasm, and in the acute stages [illegible]

As these diverse affections have [illegible] common, viz: an inflamed mucous [illegible]

with abundant tenacious secretions of mucus, the solvent action of calomel on these morbid albuminous products has a marked effect in relieving the capillary congestion of the subjacent tissues, and relieving the the spasmodic effort, which is so variously manifested in each of these several diseases.

J. C. JOHNSON, *Reporter.*

BLAIRSTOWN, May 18, 1876.

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